

**A Study of Elementary Educators on Their Beliefs, Perceptions, Barriers, and
Utilization of Small-Group Instruction**

by

Jodi Snyder

Bachelor of Science in Education, Clarion University, 2008

Master of Education, Edinboro University, 2011

Submitted to the Graduate Faculty of the
School of Education in partial fulfillment
of the requirements for the degree of
Doctor of Education

University of Pittsburgh

2020

UNIVERSITY OF PITTSBURGH

SCHOOL OF EDUCATION

This dissertation was presented

by

Jodi Snyder

It was defended on

July 8, 2020

and approved by

Sean P. Kelly, PhD, Associate Professor, Administrative and Policy Studies

Amy Srsic, EdD, Assistant Professor, Instruction and Learning

Dissertation Director: Douglas E. Kostewicz, PhD, BCBA-D, Associate Professor, Instruction
and Learning

Copyright © by Jodi Snyder

2020

Perceptions and Barriers of Small-Group Instruction

Jodi Snyder, EdD

University of Pittsburgh, 2020

As education reform continues to evolve attempting to provide educational equality, federal mandates have resulted in requirements such as least restrictive environment pushing general educators to take the lead in instructing students with disabilities. With this change, evidence-based practices delivered through small-group instruction become a critical component of educating students with disabilities. Hence, the current study investigated perceptions and barriers of small-group instruction as well as the instructional practices of educators in an elementary setting. The results demonstrated that while educators believe small-group instruction is beneficial for all students and that many try to implement it daily, most have never met ideal levels of small-group instruction implementation. Barriers described by respondents aligned to previous teacher reports of restrictions within an ever-increasing demand setting. Also consistent with research is a lack of preparation for educators resulting in limited readiness for the diverse learners appearing in general education classrooms.

Table of Contents

Preface.....	vii
1.0 Chapter 1 Introduction.....	1
1.1 Problem of Practice	4
2.0 Chapter 2 Literature Review	5
2.1 Achievement Gap.....	6
2.2 Inclusion	8
2.3 How Inclusion Changed Instruction.....	10
2.4 Differentiation of Instruction	12
2.5 Impact of Reading Difficulties.....	14
2.6 Reading Instruction for Students with Disabilities	16
2.7 Small-Group Instruction.....	17
2.8 Inquiry Questions	20
3.0 Chapter 3 Methods	22
3.1 Study Context and Pool of Participants	22
3.2 Mixed Methods	22
3.3 Data Collection.....	23
3.4 Data Analysis	23
3.5 Rationale.....	24
4.0 Chapter 4 Results.....	26
4.1 Survey Participant Demographics	26
4.2 Small-Group Instruction.....	27

5.0 Chapter 5 Discussion	33
5.1 Limitations	44
5.2 Implications for Future Research	45
5.3 Demonstration of Scholarly Practice	46
Appendix A Survey Protocol.....	47
Appendix B IRB Approval Letter	49
Appendix C Demographic Results	50
Appendix D Perceptions/Beliefs of Small-Group Instruction Results	52
Appendix E Perceived Barriers to Implementing Small-Group Instruction Results.....	53
Appendix F Frequency and Duration Results.....	54
Appendix G Grouping Students Results.....	55
Appendix H Sources of Data for Grouping Results.....	56
Appendix I Subject Areas Used with Small-Group Instruction Results	57
Appendix J Curriculum Used During Small-Group Instruction for Reading Results	58
Appendix K Instructional Activities Used During Small-Group Instruction for	
Reading Results	59
Appendix L Small-Group Interventions Occurring During Small-Group Instruction	
Results	60
Appendix M Typical Reading Instruction Results	62
Appendix N Demonstration of Scholarly Practice	63
Bibliography	67

Preface

I wish to express immense appreciation to my advisor, Dr. Doug Kostewicz for providing me essential guidance to complete this dissertation with our current unique circumstances. I also want to thank each member of the doctoral committee, Dr. Amy Srsic and Dr. Sean Kelly for your shared knowledge, expertise and support throughout this process. I also want to thank my family for their endless support and love.

1.0 Chapter 1 Introduction

According to the National Center for Education Statistics (NCES), 13% of all public-school students between the ages of 3-21 receive special education services. The extent of the disabilities varies among students. However, one factor has remained steady. Students with specific learning disabilities receive special education services under the Individuals with Disabilities Education Act (IDEA) more than any other type of disability, and this continues to grow. In an effort for specificity, the NCES notes of those receiving some form of assistance from IDEA, 34% have specific learning disabilities, 20% exhibit speech and language disabilities, 14% demonstrate other health impairments, and 5-9% diagnosed with developmental issues including autism, intellectual disturbances, developmental delays and emotional disturbances. Yet, even with a significant U.S. student population receiving special education support, educational programs continue to be driven by instruction ineffective in meeting the needs of diverse learners (Swanson, 2008).

As education evolves with societal influence an effort to provide a more equitable approach to education has occurred. Within the last few decades, educational reform focused on achieving educational equality by improving academic standards, with the hope of simultaneously improving instruction (Brookhart, 2013; Turgut, 2013). An example of this educational equality includes the development and reauthorizations of the IDEA; however, although experts are espousing that education needs to be tailored to meet individual needs, a one-size-fits all approach to education is still at the forefront of most educational methods. As inclusion became the interpretation of least restrictive environment (LRE), the educational setting has changed for students with disabilities (SWDs), but the instructional practices have remained stagnant (Zigmond, Kloo, &

Volonino, 2009). Learners' needs continue to diversify, but educators often provide learners with instruction targeting the average learner.

Since inclusion encouraged the idea that the location of where instruction occurs is more important than the type of instruction used, the role of special educators has evolved (Magiera & Zigmond, 2005; Zigmond et al., 2009). Special educators have changed from primary instructors of students with disabilities to more of a consultant role (Solis, Vaughn, Swanson, & McCulley, 2012). Acting as a liaison between parents and general education teachers, special educators often are not in the position to take the lead of instruction for SWDs, limiting their sphere of influence on the instruction of SWDs (Solis et al., 2012). While special educators have had a reduction in the control of SWDs, general educators are now responsible for diversifying instruction to meet all students' needs (Kilanowski-Press, Foote, & Rinaldo, 2010). Special educators are the teachers explicitly trained to facilitate specially designed instruction to help learners with disabilities make the improvements necessary to close achievement gaps; however, SWDs are spending the majority of time with general educators who have minimal training in research-based practices effective in helping with SWDs. One demonstration of this lack of training is the limited amount of differentiation of instruction occurring within classrooms (Zigmond et al., 2009).

As a part of IDEA, specially designed instruction needs to be utilized in order to address learning needs of SWDs (IDEA, 2018). Because SWDs will inherently struggle because of their disability, the type of instruction students receive becomes much more important (Zigmond et al., 2009). However, research has shown that specially designed, individualized instruction is not occurring routinely (Wagner et al., 2003). Changing the environment of a student will do little if the instructional practices used within that environment also do not change (Zigmond et al., 2009). Without having the appropriate instruction to make adequate academic gains, SWDs are more

prone to risk factors that have lifelong effects (Cortiella & Horowitz, 2014). One example of this is experiencing academic failure. When students experience academic failure repeatedly, their motivation is affected, ultimately affecting their overall learning (Reid-Lyon et al., 2001). Most SWDs experience difficulty with reading (Pullen & Cash, 2017). Reading is the primary mode through which students learn (Hernandez, 2012). When reading becomes a difficult process, students are less likely to engage in reading, resulting in less learning (Reid-Lyon et al., 2001). This becomes even more concerning because academic difficulties have been connected to youth delinquency and ultimately incarceration (Christle & Yell, 2008; Leone, Krezmien, Mason, & Meisel, 2005).

Research has suggested that educational programs continue to be driven by instruction ineffective in meeting the needs of students with disabilities (Otto, 2014; Swanson, 2008). As a result, educational disparities exist and varying rates of achievement continue to effect SWDs (Otto, 2014; Wagner, Newman, Cameto, & Levine, 2006). One example of this educational disparity demonstrating a gap in education is the results of state achievement tests. Furthering this problem is that achievement gaps tend to become larger with time (Judge & Watson, 2011).

With so much weight placed on one subject, effective reading instruction should be at the forefront of educators' minds, especially since reading encompasses many different skill areas (Hudson, Lane, & Pullen, 2005). One way to promulgate reading instruction is through small-group learning (Wanzek & Vaughn, 2008). According to a National Center for Education Statistics (NCES) report, general educators reported leading some type of small-group instruction in reading throughout each day (Guarino, Hamilton, Lockwood, Rathbun, & Germino Hausken, 2006). This report along with other research shows that general educators are trying to implement more small-group instruction for reading (Northrop, 2017). However, reports also show that

students with disabilities continue to have significantly lower scores in reading in comparison to typical peers (Cortiella & Horowitz, 2014; NAEP, 2017; Wagner et al., 2006). Small-group instruction has been shown through research to be effective and general educators have been trying to implement it more for reading, yet, student achievement for SWDs continues to lag behind typical peers. This poses the question of why? Thus, this paper attempts to examine existing perceptions of small-group instruction that continue to inhibit the implementation of small-group instruction with fidelity as well as the frequency, curricular materials, and the types and intensities of instructional practices used during small-group instruction, specifically for reading, in general education and special education classrooms.

1.1 Problem of Practice

While research has demonstrated that differentiated, small-group instruction can have a greater impact on student achievement, the exact frequency with which general education teachers utilize this method of instruction with fidelity is unclear (Lou et al., 1996). Furthermore, research does not list the types of instructional activities performed during small-group instruction, specifically for SWDs. Without having data on the frequency of small-group instruction and the type of instructional activities performed within general education classrooms, research cannot address the barriers general educators are facing for implementing differentiated, small-group instruction. In order for instruction to improve, research must disclose how much, if any, small-group instruction is occurring, the types of instructional activities being implemented, and identify the barriers with which general educators are facing in order to facilitate more small-group instruction, especially in reading.

2.0 Chapter 2 Literature Review

At the inception of the study of sociology, education was viewed as a system that perpetuates standing societal constructs (Hallinan, 2000). Juxtaposed to the theory that education perpetuates social class, others have viewed education as a means for people to become something greater, referred to as social mobility (Hallinan, 2000; Labaree, 1997). Research on social stratification and the mobility process has provided a framework about how schools operate in society (Hallinan, 2000). Because of this framework, the role of normative systems and educational achievement is better able to be analyzed in terms of generational mobility (Hallinan, 2000).

The idea behind social mobility is that people can gain a higher social status and position in life through education, thus indicating the importance of education (Labaree, 1997). Just as history has shown differential learning opportunities perpetuate social injustices, history has also shown that education is an important factor in life achievements and success (Hallinan, 2000; Labaree, 1997). Although success continues to encompass different meanings to different people and has changed over time, education remains as a steady causal impact (Turgut, 2013).

As education changes, so has classroom expectations (Brookhart, 2013). Educational practices can create higher expectations for all students (Stevens, Schulte, Elliott, Nese, & Tindal, 2015). Reports such as *A Nation at Risk* caused alarm by painting a bleak picture of student achievement (Turgut, 2013). Thus, educational reform became a focus for school districts and government agencies alike (Brookhart, 2013). One result of educational reform included standardized tests (Brookhart, 2013). Standardized testing began to come to the forefront in public education, reaching its highest emphasis with No Child Left Behind (NCLB; Turgut, 2013). Even

though NCLB was very controversial, this accountability movement was centered on student achievement with the main goal of improving educational equality by setting higher standards for academic achievement (Turgut, 2013; Brookhart, 2013). NCLB also emphasized progress for all students (Stevens et al., 2015).

When analyzing the overall achievement levels reported by the National Assessment of Educational Progress (NAEP; 2017), improvements in students' scores have been noted in both reading and math scores for fourth and eighth grade students since initiatives began in the early 1990s. More specifically, 37% of fourth grade students performed at or above the proficient level, and 68% of students performed at or above the basic level on the 2017 reading achievement tests (NAEP, 2017). In mathematics, 40% of fourth grade students scored at or above the proficient level, and 80% of students performed at or above the basic level (NAEP, 2017). Both the reading and math score averages of fourth grade students for 2017 were significantly higher than those of the early 1990s, and the same is true for eighth grade students (NAEP, 2017). These scores indicate that the initiatives for improving education, even if controversial, have been successful for typical students. However, the same is not necessarily true for all student groups.

2.1 Achievement Gap

Education is affected by the ideals and interests of society (Ornstein, 2016). Fortunately, society and government agencies were interested in improving the education system of the United States. Although the academic achievement of students has many factors effecting individual student outcomes, historic landmark cases have assisted in providing some educational equality to students in public school systems (Otto, 2014; Wagner et al., 2006). However, while educational

reform has created higher standards pushing education forward, research demonstrates social inequalities seem to persist as education continues to evolve (Hallinan, 2000). Varying rates of achievement produced by different groups of students suggests that education still has a long way to go before educational equity is reached for all students (Otto, 2014). One example representing this lack of equity that still exists for students with disabilities is achievement tests.

Typical fourth grade students obtained overall average scores of 227 out of 500 on the 2017 reading achievement tests (NAEP, 2017). On the mathematics achievement tests, the overall average score of a typical fourth grade student was 243 out of 500 (NAEP, 2017). These scores seem promising, especially in comparison to the growth since the 1990s. However, when they are compared to the achievement of students with disabilities (SWDs), the discrepancy is shocking (NAEP, 2017). The overall average score for SWDs on the mathematics test is 214 while the overall average score of SWDs on the reading test is 187 (NAEP, 2017). Additionally, when SWDs are given a norm-referenced achievement test, the majority will score well-below average on each individual subtest (Wagner et al., 2006). Outside of academics, SWDs experience lower graduation rates and higher suspension rates than their nondisabled peers. (Cortiella & Horowitz, 2014; NCLD, 2017). Taken as a whole, an examination of academic practices for STDs may serve as a starting point for change.

Education reformists wanted to address these inadequacies have pushed for more evidence-based practices (Schulte & Stevens, 2010). A component of NCLB was for all students to reach 100% proficiency in reading and mathematics (Schulte & Stevens, 2015). Additionally, the law set benchmarks for students to reach along the way, coining the phrase Adequate Yearly Progress (AYP; Schulte & Stevens, 2015). Legislation expected SWDs to reach the same benchmarks and be measured by the same assessment criteria as students without disabilities (Judge & Watson,

2011). This has posed difficulties for SWDs and for the districts that they attended. SWDs prevented many districts from making AYP, because many did not perform at a proficient level on the state assessment (Schulte & Stevens, 2015).

Typically, SWDs are behind their peers in terms of academic performance (Judge & Watson, 2011). Achieving grade-level proficiency at the same rate as typical peers is a struggle for SWDs (Schulte & Stevens, 2015). Research shows that achievement gaps between SWDs and typical peers remain stable or grow larger with time (Judge & Watson, 2011). Early intervention has been effective in helping SWDs (Lovett et al., 2017). However, some students are not identified as having a disability until they have reached upper grade levels (Judge & Watson, 2011). Some researchers have hypothesized that this is because these groups of students may have a less severe disability (Lovett et al., 2017). Yet, research has shown that students who were identified as having a disability in primary years performed relatively the same on assessment measures as peers identified in upper grade levels (Judge & Watson, 2011). Regardless of why students have a disability, the severity of the disability, or the grade level at which the disability is identified, the evidence is clear that SWDs are achieving at lower levels than typical peers (Wagner et al., 2006).

2.2 Inclusion

Throughout history, oppressed groups have had difficulties in many settings, including education which often took the form of segregation into separate classrooms (Kirby, 2016). Groups oppressed in an educational setting are usually segregated into separate classrooms. Just as *Brown v the Board of Education of Topeka, Kansas* suggested, segregation in school settings

results in unequal education (Nelson, 2017; Otto, 2014). Separate education can both create and reinforce societal barriers, resulting in inequality for individuals, potentially throughout their lives (Kirby, 2016). As a result of educational oppression, Congress began enacting laws in the seventies to protect the rights of students and meet the educational needs of individuals with disabilities (U.S. Department of Education, 2007). Even with the passage of the early laws, SWDs often had difficulties accessing the general education classroom (Nelson, 2017).

Although laws have changed over time and to some degree have helped to improve the education of SWDs, many of the same problematic issues remain, such as a functional skills gap in comparison to typical peers, gap in employment rates, and enrollment in post-secondary institutions (Kirby, 2016). Currently, the most recent federal policy promoted more access to the general education classroom for SWDs enacted through the Individuals with Disabilities Education Act (IDEA). As a result of IDEA, SWDs are required access to Free Appropriate Public Education (FAPE). Furthermore, IDEA states SWDs will be educated in the least restrictive environment (LRE). LRE refers to SWDs being integrated with regular education peers to the maximum extent that is appropriate (U.S. Department of Education, 2004). LRE is often interpreted as the general education setting, which has forced schools towards more inclusive practices (Obiakor & Bakken, 2016). While attempting to overcome segregation, educational reform has been used as a key approach to improve students' educational opportunities. However, special education has distinct differences than other student groups that need to be considered when making educational plans (Kirby, 2016).

Although legislation for including SWDs more with typical peers was necessary, "the legislation was never intended to force all SWDs to be educated in the regular classroom" (Zigmond et al., 2009, p. 190). A push for full inclusion became a trend during the 1990s

(Zigmond et al., 2009). Full inclusion is where a student with disabilities receives special education services in the general education classroom (Zigmond et al., 2009). Because of the push for inclusion, co-teaching became a larger role in supporting SWDs (Magiera & Zigmond, 2005). Co-teaching is where a general and special educator partner to teach together (Magiera & Zigmond, 2005).

Special education should be intensive and tailored to meet the needs of individual students (Magiera, Smith, Zigmond, & Gebauer, 2005). However, non-researched based practices such as full-inclusion are taking the forefront in education for SWDs. This indicates that although the educational setting has changed to address an inequality issue, the type of instruction that SWDs are receiving has not changed, further perpetuating the disparity between SWDs and typical peers. The focus of a classroom environment should be on instruction and ensuring all students can learn regardless of need (Kirby, 2016). Policies from IDEA put pressure on schools to change the way children with special needs receive instruction, but instruction has not really been the focus as demonstrated by the type of data collected, placement instead of progress (Zigmond et al., 2009).

2.3 How Inclusion Changed Instruction

Inclusive placements have been debated since the early 1990s causing programs involving inclusion to take on many different forms (Kilanowski-Press et al., 2010). Consequently, this has also changed the role and concept of special educators (Magiera & Zigmond, 2005). Some researchers worry that special educators have assumed more of a support role rather than leading the instruction of SWDs (Solis et al., 2012). As co-teaching became the trend and regular practice of implementing inclusion within the educational setting, problems have arisen that are detrimental

to student progress. Yet, other researchers have reported positive effects that are direct measures of improvement for SWDs.

Because districts interpret LRE as inclusion, special educators are providing support to other educators to help SWDs (Obiakor & Bakken, 2016). Current researchers are concerned that placing special educators in a support role has limited the effectiveness of instruction with inclusion and co-teaching as demonstrated by the small gains in student outcomes (Solis et al., 2012). One possible reason for this limited progress is what a synthesis of research has confirmed; many special educators are treated as subordinate teachers (Scruggs, Mastropieri, & McDuffie, 2007). This means that most inclusion models utilize the special educator as an assistant rather than an equal colleague (Scruggs et al., 2007). An example that demonstrates this ineffectiveness was a report that compared student engagement and the amount of assistance given to special needs students in a co-taught classroom to a solo taught classroom. The findings indicated that a classroom remains relatively the same even with an extra teacher in the environment (Magiera & Zigmond, 2005).

Other reports have demonstrated that different measures such as report card grades and attendance improve when students are included more in the general education classroom when compared to a solo taught class (Idol, 2006). However, achievement on standardized assessments showed no significant change between co-taught classrooms and solo taught classrooms for SWDs (Idol, 2006). Students without disabilities also had minimal effects to their test scores when they were taught with a co-teaching method (Idol, 2006). Standardized tests continue to place an overwhelming amount of pressure on teachers as they are expected to prepare classrooms, which include all students, to pass these assessments (Blanton, Pugach, & Florian, 2011).

Additionally, most general educators report that they do not feel adequately prepared to work with SWDs (Blanton et al., 2011). Researchers have actually found that general educators tend to avoid working with SWDs with regards to providing directions/instruction especially in the presence of a special educator (Magiera & Zigmond, 2005). This could be another indicator that general educators feel like they have lack of preparation have to work with SWDs. Yet, in 2015, it was reported that over 60% of SWDs spend 80% or more of each school day in general education classrooms (U.S. Department of Education, 2016). Does this indicate that most SWDs are spending the majority of their time with general educators who are not fully trained in research-based practices effective for their achievement?

2.4 Differentiation of Instruction

General education classrooms include students of varying ability levels. In order to meet the needs of these diverse learners, general educators have a responsibility to provide different instruction to meet these different needs. Differentiated instruction is planning that both challenges and provides success for students so that all in the educational environment benefit (Lawrence-Brown, 2004). Having lessons planned around meeting students' needs benefits those who find school easy and students who struggle (Lawrence-Brown, 2004). Specifically, in order to help SWDs be successful in any environment, IDEA mandated that specially designed instruction be utilized to address individual learning needs (IDEA, 2018). As defined by IDEA, specially designed instruction is special education fashioned to meet the distinct needs of SWDs in any setting at no cost to parents (IDEA, 2018). Specially designed instruction is also a technique that includes effective research-based practices (Zigmond et al., 2009).

Teachers innately want to help children and there is even research that has shown that general educators want to create a positive environment in which students can learn (Santangelo & Tomlinson, 2012). Additionally, teachers have self-reported using strategies that support differentiation of instruction (Santangelo & Tomlinson, 2012). Yet, even with the attempts of general educators, students with special needs continue to struggle. Although general educators are trying their best, other researchers have noted a lack of differentiation of instruction occurring within inclusion classrooms (Zigmond et al., 2009). Since SWDs can struggle with learning, the nature of instruction they are receiving becomes much more imperative (Zigmond et al., 2009). The most important components of achievement for a student with special needs are the types and intensities of instruction (Zigmond et al., 2009). Special educators are the teachers explicitly trained in specially designed instruction to help learners with disabilities make the improvements necessary to close achievement gaps (Magiera, Smith, Zigmond, & Gebauer, 2005). Unfortunately, the individualized instructional time that students receive is limited, because special educators are now mostly serving in the capacity of a consultant, making regular educators responsible for implementing specially designed instruction (Kilanowski-Press et al., 2010). However, SWDs are spending time with general educators who maybe insufficiently prepared to implement specially designed instruction (Solis et al., 2012).

While IDEA remains an important mandate to ensure equality across the educational spectrum, the original intent of assimilating students with special needs with typical peers in an effective, individualized manner has begun to unintentionally assume a one-size-fits all approach. Even though SWDs are spending more time in general education classrooms, research shows that it is typical for no substantial changes to occur to the general education curriculum or to the instruction SWDs receive within the regular education classroom (Wagner et al., 2003). This

demonstrates there must be a barrier for regular educators to change educational routines to sufficiently meet student needs. In fact, a synthesis of research found that when specialists would suggest changes to teachers for the purpose of improve instruction, the recommendations were typically not implemented within the classroom suggesting a lack of treatment fidelity (Solis et al., 2012). If instructional practices are not changing when SWDs are present in the general education classroom, there is little benefit to the achievement of these students (Magiera et al., 2005). Without having appropriate support and instruction in place, it is also more likely that students will fail (Lawrence-Brown, 2004). As a result of the lack of instruction in the general education classroom, SWDs are subject to more risk factors, which places more pressure on all educators to ensure instruction received is specially designed to meet individual needs.

2.5 Impact of Reading Difficulties

Academic difficulties, particularly in reading, have been connected to youth delinquency and most incarcerated youths are below grade level in reading (Christle & Yell, 2008; Leone et al., 2005). This is especially concerning for SWDs as more than one-third have had a form of disciplinary action in each given school year (Wagner et al., 2006). Disproportionate disciplinary actions on SWDs negatively impacts school success and post-secondary achievement (Cortiella & Horowitz, 2014). Youth delinquency leads to incarceration putting SWDs more at risk. In fact, a national survey found that 34% of incarcerated youth were identified as having a disability (Leone et al., 2005).

One of the primary difficulties SWDs experience is struggling to develop appropriate reading skills (Pullen & Cash, 2017). When reading becomes a laborious process, students become

frustrated resulting in less reading, which can negatively impact their reading ability and also their overall learning and understanding (Reid-Lyon et al., 2001). Past experiences of a student over time effects academic achievement (Wagner et al., 2006). This indicates that if a student has mostly negative experiences with a subject, the academic achievement within that subject area will result in a consistent negative impact.

Research shows that children need to be at a proficient reading level by the end of third grade. “Third grade is an important pivot point in a child’s education, the time when students shift from learning to read and begin reading to learn” (Hernandez, 2012, p. 5). Children who are not reading proficiently by the end of third grade may not graduate from high school on time or at all (Hernandez, 2012). This is evidence that, in total, teachers have approximately four years to provide students with intensive reading instruction before individual life outcomes are at risk.

The lack of an ability to read has lifelong effects, including the ability to attend and complete college as well as success in the work force (Cortiella & Horowitz, 2014). One way to combat the struggles that SWDs face is by providing instruction at early grade levels (Lovett et al., 2017). Early intervention is important for all students to build the foundational skills that students need for further learning (Stockard & Engelmann, 2010). The grade in which students begin receiving intervention is important for their rate of growth and continued progress (Lovett et al., 2017). Strategies that target reading deficiencies as act as preventative measures in reducing the risks that struggling readers face (Christle & Yell, 2008). Unfortunately, many students receive less than adequate early instruction which can prevent longer term gains (Reid-Lyon et al., 2001).

2.6 Reading Instruction for Students with Disabilities

Many concepts need to be mastered in order to read well (Hudson et al., 2005). Readers need to be able to identify sounds, blend phonemes, read common patterns across words and use letter-sound meaning to determine pronunciation of a word within a text (Hudson et al., 2005). Because reading is an integrated process that involves many skills, reading is considered multifaceted and can be difficult for some learners (Pullen & Cash, 2017). SWDs focus significant time and effort trying to read individual words within a text, causing their reading to become disconnected, which decreases comprehension (Hudson et al., 2005). Because SWDs, especially learning disabilities, have problems with the working memory index part of the brain, more repetitions are required to learn a skill or concept when compared to typically performing peers (Gersten et al., 2009). While most students can learn through typical reading and writing instruction that can include traditional paper and pencil tasks, executive functioning difficulties and memory issues make these traditional methods essentially inaccessible to SWDs (Lawrence-Brown, 2004).

Recognizing that reading is a complex process, in the 1990s, Congress created a panel of researchers, the National Reading Panel (NRP), who were tasked with finding research-based practices in which reading instruction should occur (NRP, 2000). From this report, five main areas of reading instruction emerged as targeted areas in which instruction should occur. The report itself broke reading apart into alphabetics, fluency, and comprehension; however, within those categories, subcategories emerged such as phonemic awareness, phonics, fluency, vocabulary, and comprehension.

Phonological awareness, which encompasses phonemic awareness, is the ability to manipulate, segment and blend sounds and suggest future literacy ability (Henbest & Apel, 2017).

This is a beginning stage of reading instruction (Grimm, Solari, McIntyre, & Denton, 2018). When children begin to associate sounds to letters, they have unlocked the alphabetic principle (Henbest & Apel, 2017). Typical functioning students are able to learn letters and sounds simultaneously and use their phonological awareness knowledge to read individual words (Grimm et al., 2018).

Once students are able to apply the alphabetic principle to decode unknown words, phonics instruction occurs (Henbest & Apel, 2017). Children in classrooms that focus on phonics perform better than their peers who do not as demonstrated by various word reading measures (Henbest & Apel, 2017). Systematic phonics instruction causes large improvements in students overall reading accuracy (Torgerson, Brooks, & Hall, 2006). Systematic instruction is distinguished by the sequential way in which it is presented in an explicit fashion (NRP, 2000). When reading instruction and early identification and remediation of the subcomponents of reading occur, later reading difficulties can be avoided (Grimm et al., 2018). Additionally, when instruction is systematic, both students who are at risk and those who are typical learners show better progress in reading accuracy when they have had systematic reading phonics instruction (Torgerson et al., 2006). Because reading is a complex process, all students would benefit from instruction that is evidence-based.

2.7 Small-Group Instruction

Small-group learning has a relationship with stronger academic gains than traditional whole-group instruction (Lou et al., 1996; Wanzek & Vaughn, 2008). Students given instruction in small groups showed stronger gain as compared to instruction in whole groups (Elbaum, Vaughn, Hughes, & Moody, 1999; Watts-Taffe et al., 2012). There are certain characteristics of

learning that occurs when engaged small-group instruction happens. Scaffolding of skills and concepts, which is reliant on student motivation and participation are important for student learning (Kelly & Turner, 2009). Having engaged small groups of students can place emphasis on scaffolding concepts that can lead to mastery (Kelly & Turner, 2009). Additionally, small-group instruction makes it easier to individualize and differentiate skills for individual students than teaching a class as whole (Connor & Morrison, 2016). Having less students alone does not of course lead to higher achievement.

As one study pointed out by researching smaller classroom sizes, no significant changes in achievement on average occurs with less students in each class, particularly when analyzing that one criterion (Milesi & Gamoran, 2006). This is because numbers alone do not make the difference; instruction is at the heart of student achievement. The same study also found significant effects of instruction on classroom achievement, placing an emphasis on teacher quality (Milesi & Gamoran, 2006). However, when the instruction is created towards student need and delivered in a small-group instructional format, student achievement is likely to increase (Lou et al., 1996; Torgesen et al., 2001).

The implementation of small-group instruction in reading is an example demonstrating the potential effectiveness of small-group learning. The efficacy of small-group instruction in reading has already been established through research, but there are mixed reports on its frequency of use within general education classrooms (Northrop, 2017; Swanson, 2008). Some research indicates whole-group, homogenous instruction is used much more frequently than small-group instruction in general education classrooms (Swanson, 2008). Whole-group instruction means that students are being taught as one large group with a focus on the same instruction rather than diversely

meeting student needs (Lou et al., 1996). Small-group instruction is where the whole class is separated into small-groups in order to focus on differentiating learning (Lou et al., 1996).

Although methodologies utilized in reading instruction remain controversial topics, small-group instruction continues to be promulgated as an effective reading strategy (Wanzek & Vaughn, 2008). More specifically, differentiated, small-group instruction is one of the most effective instructional practices on which special educators rely (Zigmond et al., 2009). Differentiated instruction has been accredited with improving instruction and student growth for all students (Policastro, Mazeski, Wach & Magers, 2019). However, differentiated instruction is more than providing a student with a different level of difficulty worksheet; differentiation is a way to approach instruction and meet individualized needs (Policastro et al., 2019; Watts-Taffe et al., 2012). Differentiated instruction is providing the scaffolding, modeling, and explicit instruction each student needs to be successful and can be delivered through various small-groups (Kamps et al., 2008; Watts-Taffe et al., 2012). In fact, longitudinal studies have shown that kindergartner through third grade students demonstrated larger gains in reading abilities when teachers used differentiated, small-groups as compared to teachers who used “high-quality” whole-group instruction (Watts-Taffe et al., 2012). However, there are other variables that need to be considered when implementing small-group instruction such as, frequency, duration, and type of instructional activity (Elbaum et al., 1999; Torgesen et al., 2001). If general educators are not implementing small-group instruction with fidelity or are utilizing whole-group, homogeneous instruction, this means that for the majority of the school day, SWDs are participating in instruction that is not supporting individual needs for overall retention and growth (Swanson, 2008).

Small, differentiated groups do affect student achievement, however, research does not show the frequency with which general educators utilize small-group instruction or the types of

instructional activities performed during small-group instruction, specifically for SWDs. This indicates a gap in research data for how general educators are utilizing small-group instruction. While several studies have been conducted to compare the effectiveness of whole-group instruction to small-group instruction for SWDs, little data exists on how the frequency and purpose with which general educators utilize small-group instruction specifically for the growth of SWDs impacts achievement.

In order to ensure that educators working with SWDs appropriately utilize evidence-based instructional practices, more data needs to be performed on how general educators are utilizing small-group instruction for all students and specifically for SWDs. SWDs inherently face challenges because of their disabilities, which stresses the importance of the educational decisions that teachers make for students' overall growth and learning. Without proper instruction, students with special needs are going to fall further behind. Since little data exists on the frequency with which small-group instruction is occurring and the types of instructional practices performed during small-groups additional research on small-group instruction needs to be performed to guide educators towards improved decision making for all learners, especially SWDs.

2.8 Inquiry Questions

Research shows that reading impacts all areas of a student's life. Not only does reading impact future life outcomes, but reading also is the most important tool children need to access other subject areas. Research also shows that students with disabilities are not given the appropriate instruction that they require in order to make the necessary academic gains to become strong, independent readers. In order to assist teachers in helping readers who struggle, it is

important to identify how elementary level general educators deliver reading instruction. Not only does this include the curriculum that they are using, but also the instructional practices such as small-group instruction. It is important to identify how frequently teachers are providing students with small-group instruction as well as the procedure used for how they create the small groups. It is also important to identify what teachers know about inclusive reading instruction for students with and without disabilities, what types of grouping they utilize, instructional delivery, and what kind of interventions occur during reading instruction. All of these components will help answer what are general education teachers' perceptions of small-group instruction for reading and what barriers do they face for implementation?

By researching the amount of and way in which small-group instruction is facilitated, areas lacking evidenced-based practices will be identified. With this information, professional developments can be created to address areas of need, helping teachers improve small-group instruction for all students, but especially, for students with special needs. The specific research questions that guided this study include:

1. What barriers are educators experiencing when trying to utilize small-group instruction and what are the impacts of those barriers?
2. How are educators using small-group instruction including: frequency, duration, instructional activity, interventions, curricular materials and specifically what instructional activities are being done in reading?
3. How are educators forming groups including: data, grouping formats and for what specific subject areas?
4. Does teacher preparation impact the implementation of small-group instruction with fidelity?

3.0 Chapter 3 Methods

3.1 Study Context and Pool of Participants

Data used in this research was gathered through a survey administered within an affluent, highly ranked, suburban school district in the western United States. The district serves approximately 12,000 students who come from culturally diverse backgrounds with an overall district diversity rate of 53.5%. The average student-teacher ratio is 16 to 1. Within the district, there are 12 elementary schools with approximately 30 teachers each. The participants in this study included surveying all general and special education teachers from each elementary school (~300 individuals).

3.2 Mixed Methods

The survey (Appendix A) included a mixture of quantitative and qualitative questions designed to investigate the implementation of small-group instruction in elementary settings. The survey was created through Qualtrics. The survey included open-ended demographic questions, closed-ended rating scales, and a mixture of both question items to gather information on teachers' knowledge of small-group instruction, implementation of small-group instruction, reading instruction, and any barriers they face to implementing small-group instruction. No conditions were manipulated for the collection of this data.

3.3 Data Collection

Upon receiving district and university IRB approval (Appendix B), each individual elementary school's administration sent a link to the survey to each teacher. Each teacher was asked to voluntarily and confidentially participate electronically via a computerized consent script. Within the body of the email sent to the teachers, there was an announcement about the participants volunteering their information to be entered for a chance to win a \$50 gift card. Upon completing the survey, participants were directed to a secondary survey on a different website where they could opt to provide their name, address, phone number, and birthdate for a chance to win one of ten \$50 gift cards. The primary and secondary surveys were completely independent of one another. Individual responses cannot be connected to any identifiable information.

The survey was monitored by the researcher to ensure that people were taking the survey through the response feature in Qualtrics. Qualtrics recorded the responses of each individual electronically for the researcher to view. The results were reviewed in the report section of Qualtrics. Once the data was collected, information was transferred into an excel data sheet. Since the data was collected through Qualtrics, it was exported directly from the site, preventing any manual inputting errors. All raw data appear in Appendices C through M and are presented in the results section.

3.4 Data Analysis

Qualitative data analysis. An analysis of data was performed on open-ended questions using coding by themes. Coding was completed three times question by question. During the

preliminary analysis, a code book was created and open-ended responses were color-coded by theme to match code descriptions. Then, the codes were revisited and more specific definitions were applied. On the third analysis of data, definitions were reviewed again to ensure accuracy of descriptive characteristics among codes. Questions with closed-ended responses always included other as an option for respondents to input selections not listed. Because of this, there were closed-ended questions in need of qualitative coding. These questions were coded the same way. After all coding was completed frequency distribution was used for comparative analysis. Each theme was examined to gain an understanding of respondents' perceptions, barriers, and possible links.

Quantitative data analysis. Most questions within this survey consisted of closed-ended response questions. These questions were analyzed using frequency of response. No inferences were made about the population as a whole. Before analysis the gathered data was prepared by checking for missing data and outliers (i.e. responses that did not actually answer the question). Quantitative measures were applied using calculations through data management system in excel. Descriptive statistics were used to discuss the surveyed responses. Frequency distribution was used to determine respondents' background in teaching, perceptions, and beliefs about small-group instruction.

3.5 Rationale

Surveys are used often in research to examine large groups of people in the United States to yield useful, descriptive information and can be used for a wide variety of reasons (Mertens, 2015). Surveys are also useful in assessing the frequency of occurrence within a population (Mertens, 2015). A mixture of open-ended and closed-ended questions were decided upon to allow

respondents to feel ownership as a contributor as well as gather more descriptive information on the implementation of small-group instruction. The accessibility of an online survey allowed respondents to complete the survey within their own time parameter and at their own pace. While there are positives for utilizing surveys in conducting research, respondents are asked to self-report knowledge, perceptions, or behaviors making the validity of the information based on the honesty of the respondent (Mertens, 2015).

4.0 Chapter 4 Results

4.1 Survey Participant Demographics

There were 31 respondents who participated in the survey yielding approximately a 10% response rate (31/300) with demographic survey answers appearing in Appendix C. Slightly more than half (17/31) reported having more than 16 years teaching experience with the remainder having 15 years or fewer. The largest single group (10) had over 21 years of experience. Regarding teaching certification, almost 75% (21/31) reported an elementary education certification. Some teachers (13/31) reported also maintaining special education certification. The majority of teachers (18/31 or 58%) currently serve as a general educator with 48% (15/31) acting as special educators or specialists. Regardless of certification type, level of preparedness and experience with working with small groups differed.

More than 50% of respondents had two or fewer classes in college focused on small-group instruction or supporting students with special needs with more than 30% reporting zero classes. On the other hand, 50% of teachers had three or more classes dividing the group in half. Reported preparedness skewed toward lower values. Approximately a third of teachers (10/31 or 32%) responded with receiving a moderate amount of preparedness with almost all other respondents reporting little or no preparation to facilitate small-group instruction.

While not reporting college preparation with small-group instruction, many did seek courses on their own or participated in courses through their place of employment. More than three quarters (24/31 or 77%) of the respondents reported taking courses after college. Teachers

reported taking a number of courses that ranged from 1 to 4 (9/24 or 38%), 5 to 10 (25% or 6/24), or more than 10 (5/24 or 21%).

The last question targeting teacher experience asked about experience with instructing students with special needs. The majority of respondents (21/31 or 61%) reported obtaining their experience from having special needs students in their classrooms and working with them. Twenty-six percent (8 of 31) of the respondents reported being trained at the collegiate level on how to work with students with special needs while others reported being trained by the district (7/31 or 23%), some (5/31 or 16%) reported having a mentor or coach who worked with them inside their classrooms on how to work with students with special needs, while a few selected other (4/31 or 13%) as their response.

In summary, the teachers surveyed had approximately 15 years teaching experience mostly with an elementary certification. Many of the teachers had few college courses and little to no preparation to implement small-group instruction or teach students with special needs. However, many of the teachers pursued additional coursework and gained small-group experience once on the job.

4.2 Small-Group Instruction

Perceptions/beliefs of small-group instruction. Teachers responded to questions about the perceived benefits of and who should receive small-group instruction (Appendix D). A clear majority of respondents (94%) believed small-group instruction is beneficial overall and 87% felt it beneficial for all students. Only a small portion of respondents believed small-group instruction was only best for struggling students or students with special needs. As to the level of benefit,

approximately 90% of teachers perceived the level of importance was extremely or highly important with 30% reporting they have always acknowledged the importance. Another group of teachers (23%) have changed over time reporting that they have felt an increased benefit when using small-group instruction. When implementing small-group instruction, the vast majority of teachers (28/31) felt moderately or extremely comfortable. In summary, teachers felt that small-group instruction was beneficial for all students and felt comfortable in its implementation.

Perceived barriers to implementing small-group instruction. The next set of questions were designed to identify what barriers, if any, educators face when trying to implement small-group instruction (Appendix E). Survey respondents could choose from multiple options. A number of respondents provided one barrier (8/31 or 26%), two barriers (15/31 or 48%) or three or more barriers (8/31 or 26%). The majority of respondents (27/31 or 87%) selected time as an implementation barrier with classroom management appearing and lack of resources appearing 55% and 29% of the time, respectively. Lack of training was the least often reported as a barrier.

When respondents were asked how the barrier(s) effected their implementation of small-group instruction, a wide-variety of answers were given. The barrier of time appeared often reportedly influencing planning, finding resources, attempting to teach enough material, and dealing with problem behaviors. Lack of training impacted implementation while a lack of resources affected quality. Specific examples appear in Appendix E. When combined (barriers and effect of barriers), clear alignment occurs between a stated lack of time due to deficits in implementation training and classroom management abilities.

Frequency and duration of small-group instruction. Teachers responded to a group of questions that focused on how often (frequency) and how long (duration) they implement small-group instruction (Appendix F). The majority of respondents (24/31 or 77%) reported using small-

group instruction daily, 9% (3/31) reported using small-group instruction three to four times per week, and 13% (4/31) reported using small-group instruction two to three times per week. The majority of respondents (19/31 or 61%) use small-group instruction for 10 to 20 minutes at a time. Except for one teacher, the remaining group reported they implement small-group instruction for longer than 20 minutes but shorter than 40 minutes. On average, teachers in the surveyed pool implement small-group instruction daily between 10-20 minutes.

Grouping students for small-group instruction. A series of questions focused on how teachers group students for small-group instruction (Appendix G). Homogeneous grouping by ability occurred 77% (24/31) of the time. Slightly less than half of the teachers, 46% (11/24), used student ability as the only means of grouping homogeneously. Teachers reported learning profiles and struggling students as factors when grouping homogeneously. Heterogenous grouping appeared 42% of the time with teachers reporting they mixed all abilities within the group. Overall, however, many of the teachers provided answers that showed that they used both types of grouping models; grouping high and medium achieving students and low and struggling students. Ability appeared to play the strongest role in determining groups.

Sources of data that influence small-group instruction. Following what types of learners were grouped together, participants were asked what sources of data they used to create small groups (Appendix H). Respondents had multiple options to choose from and could provide more than one answer. Teachers provided differing sources that influence grouping decisions. Three teachers chose only one source, five teachers chose two sources and 23 teachers chose three or more.

The source of data appearing most often involved observational data (26/31 or 84%) followed by formative (23/31 or 74%) and summative (22/31 or 71%) assessment data. Following

the top three, the teacher's opinion (18/31), standardized test scores (12/31), and cumulative data (8/31) round out the majority of data sources. The final sources (5/31 or 16%) included anecdotal notes, student interests and compatibility, program assessments, criterion-based assessments and one-on-one help instead of a small group. Generally speaking, teachers report relying on similar student data and multiple data points for grouping.

Subject areas used with small-group instruction. The next set of questions were designed to examine what educators taught (i.e., subject area) during small-group sessions (Appendix I). A majority of teachers (18/31) used small-group instruction for three or more subject areas. Twelve of the teachers use small-group instruction for two subjects with one teacher reporting one subject. All 31 teachers provide small-group instruction with English language arts (ELA) and almost as often with math (30/31). Science, social studies, and social skills also appeared as answers. As a group, the teachers reported commonly using small-group instruction for ELA and Math.

Curriculum used during small-group instruction for reading. Additionally, respondents were asked through an open-ended question what curricular materials they use to teach students reading. The answers varied greatly and appear in Appendix J. Almost half of the participants listed using leveled books as their primary curricular material to teach students reading (48%). More than one third of respondents reported using manipulatives (35%), which could include magnet letters or chips. A little more than a third (32%) listed the district provided reading curriculum *Lucy Calkins Units of Study*. The next highest reported curricular material for teaching students reading was writing materials (23%), which could include any material necessary for writing from mention of a pen to sticky notes. Teachers reported using varied curricula, but tend to gravitate to leveled books, manipulatives, and district provided materials.

Instructional activities used during small-group instruction for reading. The next question asked respondents to discuss the types of instructional activities they implement when pulling a small group for reading instruction. The teachers provided many diverse instructional activities due to the open-ended nature of the question (Appendix K). A strong percent of respondents (48%) reported phonics activities as an instructional activity during small-group instruction. Another highly-selected category was comprehension activities (42%). More than a third of respondents reported using shared reading (35%) and discussion (35%), which could include conferencing and feedback, as instructional activities during small-group instruction. A little less than one quarter of respondents reported doing fluency activities (23%) during small-group instruction.

Small-group interventions occurring during small-group instruction. Another area examined was the type of interventions educators used during small-group instruction (Appendix L). Slightly less than a quarter (23%) of respondents reported using phonics instruction as an intervention. Using small groups, one-on-one work, Orton Gillingham, and leveled books were all selected as the next highest intervention as all of them were selected by 19% (6/31) respondents. The third highest ranked interventions were selected by 4/31 or 13% of the respondents and included: Leveled Literacy Intervention, comprehension activities, differentiated lessons, and online resources. The remaining interventions listed were selected by less than 10% of the respondents. Unlike subject area and curricula choices, interventions did not coalesce around a large number of teachers. Many diverse interventions appeared in the responses.

Typical reading instruction. Lastly, respondents were asked to think about how they typically teach reading (Appendix M). The choices respondents had to select from included: whole group instruction, small-group instruction, mixture of whole-group and small-group instruction, I

don't teach reading, or other. The most popular response (20/31 or 65%) was a mixture of whole-group and small-group instruction. Of the 20 respondents, five also selected other choices as well, with four of those respondents also individually choosing small-group and whole-group as options. The next most selected way of teaching reading was through small-group instruction (10/31 or 32%). Of the 10 respondents who chose small-group instruction as their primary mode for teaching reading, two also selected other and both listed one-on-one instruction. One respondent, a special education teacher, selected other as the only option and listed one-on-one instruction as the primary mode used for teaching reading.

5.0 Chapter 5 Discussion

Education reform has attempted to help SWDs by providing students with specially designed instruction in the least restrictive environment (LRE; IDEA, 2018). Small-group instruction has sometimes served as an LRE, however, research shows SWDs continue to struggle academically (Judge & Watson, 2011; Schulte & Stevens, 2015; Wagner et al., 2006). Questions surround the frequency and fidelity of small-group instruction occurring in general education classrooms schools (Swanson, 2008). Research suggests general educators are often placed in a position to educate classrooms of learners with diverse needs without having sufficient training in order to do so effectively, while special educators are often placed in support roles rather than leading instruction for SWDs (Kilanowski-Press et. al., 2010; Magiera et al., 2005; Solis et al., 2012). Therefore, this research surveyed general and special educators to further analyze small-group instruction implementation and identify barriers to its utilization.

Survey findings suggest the majority of teachers not only believe small-group instruction is important and beneficial for all students, many reported implementing small-group instruction daily, particularly for core subject areas such as ELA and math. The data collected from respondents also suggested a considerable lack of teacher preparation, which is consistent with what other research has found (Blanton et al., 2011; Kilanowski-Press et al., 2010; Obiakor & Bakken, 2016). From this survey, research indicates teachers are implementing small-groups for reading and math, but are they doing it enough and could they be facilitating it in a more effective manner? Or as some research suggests, does it just rely on the quality of the teacher (Gamoran, Nystrand, Berends, & LePore, 1995)? The purpose of this study was to examine how educators are forming groups, how educators use small-group instruction, identify what barriers, if any,

educators are experiencing when trying to utilize small-group instruction, learn the amount of small-group instruction occurring, and gauge the impact of teacher preparation on implementing small-group instruction with fidelity.

The first research question of this study asked, “What barriers are educators experiencing when trying to utilize small-group instruction and what are the impacts of those barriers?” A common response from almost every teacher included time or rather the lack of time. Previous research has shown that the job of teaching has intensified and teachers experience time as a major constraint (Ballet & Kelchtermans, 2008; Hargreaves, 1993; Peeters & Rutte, 2005; Valli & Buese, 2007). Reflecting on an additional responsibility (i.e., small-group instruction) does present a considerable barrier as teachers are asked more and more in the classroom (Ballet & Kelchtermans). Teachers, however, did not present time alone as a barrier. Time appeared linked to other barriers (i.e., a lack of resources, classroom management, and training) which suggests a lack of time was often an outcome not the cause.

Teaching, in general, is a resource demanding profession and a lack of available resources is a common criticism within the profession (Scruggs & Mastropieri, 1996). The additional strain of small-group instruction pulls even harder on limited resources. For example, one respondent stated, “Having a lack of access to books, curriculum, hands on resources (i.e. magnetic letters, etc.) makes it difficult to teach and increases prep time to prepare materials that will need to be used instead.” Another respondent demonstrated this connection by stating, “I'm sure there are all the resources out there for me to use, but sometimes I don't know where to find them, or haven't planned far enough in advance to acquire them before a lesson.” Increased availability of resources can set the stage of additional implementation. Another strain on classroom time involves managing the classroom.

Classroom management is a teacher concern that extends far past small-group implementation (Hagermoser-Sanetti, Williamson, Long, & Kratochwill, 2018). Teachers across educational settings report struggling to manage classroom behavior, appropriate or inappropriate (Hagermoser-Sanetti et al., 2018). Adding the nuances of small-group instruction intensifies management concerns. For example, “The amount of time some students require then plays into the classroom management issue where while working with a small group, the other students have questions that arise and want or need to ask the teacher.” Another teacher pointed out, “When there is a child who has a high level of need (for SpEd reasons, ELL reasons, emotional regulation issues, violence issues, etc) it is difficult to run small groups because the other students need to be really independent if no other adult is present. There is so much curriculum to cover now I feel it is often hard to fit small groups in because each lesson is shorter than I'd like.” Teachers noted known difficulties in balancing the management of behaviors and implementing instruction (Gage, Scott, Hirn, & Macsuga-Gage, 2018). Increased training may provide the time necessary to implement small-group instruction, however, training appears as another barrier.

Teacher training is a core concern for the educational community (Guarino et al., 2006). Whether its implementing small-group instruction, managing the classroom, or working with children with special needs, some but not many teachers identified lack of training as a barrier. Many of the respondents taught in general education settings and may have had less training and classes working in small, inclusive educational groups. Most general education teacher preparatory programs require only one course on educating students with special needs, and reported that they do not feel fully prepared to work with SWDs (Blanton et al., 2011; Kilanowski-Press et al., 2010; Obiakor & Bakken, 2016). However, many teachers reported attending additional courses after college. The additional trainings may have increased the comfort with small-group instruction and

working with students with special needs and reduced the number of teachers reporting training as a barrier.

The second research question asked, “How are educators using small-group instruction including: frequency, duration, instructional activity, interventions, curricular materials and specifically what instructional activities are being done in reading?” The majority of respondents reported utilizing small-group instruction daily with most sessions lasting 10 to 20 minutes at a time and a little more than a quarter of respondents reporting 20 to 30 minutes at a time. Although these amounts of time may sound considerable to some, it does pose the question how many students are these small-groups reaching and are they reaching the struggling readers enough?

Small-group instruction does not have a set, prescriptive diet that can be haphazardly assigned to groups of students. However, research does suggest that using progress monitoring to increase the intensity of instruction, which includes frequency and duration as well as provide explicit, more comprehensive, and more supportive instruction is the most effective way to help struggling readers (Foorman & Torgesen, 2001, Fuchs et al., 2014; Mageiera et al., 2005; Zigmond et al., 2009). Since most teachers reported using a mixture of whole-group and small-group instruction, it must be assumed teachers are rotating students through these groups.

Additionally, instructional activities that promote success in reading should target phonemic awareness, phonics, fluency, vocabulary, and comprehension (NRP, 2000). While phonics and comprehension activities were both highly listed by respondents, the other areas were not frequently mentioned and between the three were only mentioned about 19% of the time on average. Phonemic awareness instruction, although most important in early grades, should continue through second grade and possibly higher, particularly for struggling students (Ehri et al., 2001; Ukrainetz, 2009). More specifically, phonemic awareness is a part of students’ phonological

awareness, which research indicates as one of the most important components of literacy outcomes (Ehri et al., 2001; Henbest & Apel, 2017). One specific study found that direct instruction in phonemic awareness coupled with phonics instruction was one of the best means in helping young, struggling readers (Foorman & Torgesen, 2001).

Another crucial issue for struggling readers is acquiring accurate and fluent reading (Torgesen, 2002). One instructional strategy for improving fluency is repeated readings (Therrien, 2004). Yet, repeated readings as an intervention was only mentioned by one respondent and fluency as a focus by a mere 19%. Another important reason for fluent reading is because fluency leads to comprehension (Torgesen, 2002).

Another method of achieving comprehension is by using explicit and implicit vocabulary instruction (Kieffer & Lesaux, 2007). In upper elementary grades, vocabulary demands of texts cause students to struggle with reading comprehension (Kieffer & Lesaux, 2007). Moreover, struggling readers benefit more when reading books with vocabulary-controlled texts (Foorman & Torgesen, 2001). Comparing the percentages reported of phonemic awareness, fluency and vocabulary instruction to the number of lower and upper elementary teachers who participated in this study, there seems to be a deficit in the balance of instructional activities and interventions reported.

Moreover, when analyzing the respondents' answers for interventions and thinking that interventions are typically reserved for struggling readers, the reading interventions listed seemed to lack a comprehensive approach. Although it is true that reading interventions should be individualized to student need, which could produce a wide-variety of reported instructional activities and interventions, the reported activities and interventions in this study does not demonstrate a cohesive approach to reading instruction. Some might consider this lack of

instruction as poor teacher quality, but could it be argued the seeming lack of instruction is actually a result of a more systemic problem? As mentioned before, teachers' work has intensified and although it is more common for direct correlations in research to be made to time and overall work contentment, one specific study examined how the increase in work and intense pressure on improving student achievement impacted role ambiguity and teacher ability in differentiating instruction appropriately (Valli & Buese, 2007). This study references the impacts of policy-making on teacher pressure while focusing on the effect of too many demands, too rapidly and found potential impacts on differentiated instruction. More specifically, as the teachers attempted to differentiate instruction, they became good at task managing, yet there was little evidence that the new roles they assumed lead to an improvement in their instructional differentiation (Valli & Buese, 2007).

The third research question asked, "How are educators forming groups including: data, grouping formats and for what specific subject areas?" The data sources respondents reported for creating groups varied, and many of the respondents reported using multiple data sources. However, the majority of respondents listed using observational data and over half of respondents listed using their opinion as primary sources. While it is important for educators to use multiple sources of data when making educational decisions, some research indicates the types of data sources being used leads to subjectivity in group assignment process (Hallinan, Bottoms, & Pallas, 2003). This can be problematic because it allows the possibility of nonacademic influences to impact the group determination for a student creating a poor match in the instruction and ability level of the student (Hallinan et al., 2003; Ready & Wright, 2011). More specifically, a student could be placed in an ability group that is beneath their individual learning level, leaving the student in a limited learning situation (Hallinan et al., 2003). Using subjective data allows teacher

perceptions of student performance to impact decision making, which can have a powerful influence over a child's educational experience and possibly their future social and economic successes (Ready & Wright, 2011). Some studies suggest students who are placed in higher-ability groups are more often given higher-quality instruction (Hallinan et al., 2003; Ready & Wright, 2011). Findings also indicate this is true regardless of a student's ability level (Hallinan et al., 2003). Another study alerting to the use of opinions and subjectivity asked teachers to rank their students so as to identify which students would need reading interventions and extra support. The findings suggested 17% of students not ranked as needing interventions by teachers were actually in need of extra support and would benefit from interventions (Grimm et al., 2018).

Although research suggests instructional level group-matching as important, some other research indicates having heterogeneous groupings allows for students to have greater learning opportunities through observation of other group members instead of being solely reliant on the teacher (Collins, Gast, Ault, & Wolery, 1991). This leads to the next discussion point, which is how most respondents reported grouping their students. While heterogeneous grouping was reported by respondents, the majority of respondents in this study reported homogeneously grouping students. The debate on how to best group students has been ongoing for quite some time and research exists supporting both heterogeneous and homogeneous groupings (Betts & Shkolnik, 2000; Steenbergen-Hu, Makel, & Olszewski-Kubilius, 2016).

Grouping by ability seems logical in practice and efficient because an educator can target one specific instructional level (Betts & Shkolnik, 2000; Gamoran et al., 1995). Others have indicated teaching the same task during small-group instruction may affect how quickly students learn because of the ease with which the group will be facilitated (Collins et al., 1991). While these positive effects have been noted, some other research cautions there could be unintended

consequences (Betts & Shkolnik, 2000; Gamoran et al., 1995). Some of these unintended consequences include segregation of students in academic standards leading to inadequate results for the students in regard to their achievement as well as nonacademic segregation affecting students' overall self-worth (Gamoran et al., 1995). Other research suggests placing students into groups by ability allows students in the lower groups to become passive learners and can increase classroom management issues (Good & Marshall, 1984).

Classroom management difficulties is one motive some researchers argue for the use of mixed groups, claiming the mixed groups would help prevent managerial difficulties (Good & Marshall, 1984). In addition to classroom management claims, there is research on peer tutoring that further supports heterogeneous groupings. Some research suggests peer tutoring could be effective because students are socially and verbally motivated and engaged, while other research suggests it could be the heterogeneous pairing (King, Staffieri, & Adelgais, 1998; Greenwood, Arreaga-Mayer, Utley, Gavin, & Terry, 2001). One study suggested peer tutoring as an effective intervention for SWDs regardless of the amount of time spent or disability of the student (Bowman-Perrott et al., 2013). The success of instructional strategies like peer tutoring are suggested to be likely for tutors and tutees because of features like frequent chances to respond, immediate feedback and can be facilitated during small-group instruction (Bowman-Perrott et al., 2013; King et al., 1998).

The last area measured within this research question included subject areas in which respondents reported utilizing small-group instruction. The majority of respondents in this survey reported using small-group instruction for both ELA and math while other subject areas were mentioned but utilized small-group instruction at a lower response rate. Still, more than one third of respondents reported using small-group instruction for all subject areas. What is interesting

here is that respondents reported time in a variety of facets as being the largest barrier to small-group instruction yet more than one third of respondents also reported using small-group instruction for all subject areas. One study that possibly relates to this seeming mismatch focused on student reporting rather than relying on teacher reports of frequency for small-group instruction. In this specific example, 25% of third graders reported using small-group instruction weekly while 53% reported they never used it (Good, Grouws, & Mason, 1990). Contrary to this belief that small-group instruction is not occurring as much as reported, another researcher cautions the overuse of small-group instruction. One such researcher suggested using too many small groups creates classroom management and behavior problems, which could limit the learning time of students (Ward, 1987). However, keeping in mind the meta-analysis mentioned before on small-group instruction did indicate students in small-groups in classrooms learned significantly more than students who were not instructed in small groups (Lou et al., 1996). This discrepancy in reporting a large barrier to implementation yet a large reporting of utilizing small-group instruction for all subject areas poses the question of is small-group instruction occurring with fidelity? This leads to the last research question that guided this study.

Research question four asked, “Does teacher preparation impact the implementation of small-group instruction with fidelity?” While few respondents reported a lack of training as a barrier, the majority of participants in this study reported their college preparation prepared them a little or not at all for implementing small-group instruction. Additionally, most general educators in this study reported having two or less college courses on small-group instruction or working with students with special needs. Yet, many general educator respondents reported feeling extremely comfortable or moderately comfortable designing groups for small-group instruction. When comparing the number of classes general educators had on small-group instruction or

working with SWDs to the amount of training special educators received, and keeping in mind general educators are required to implement many aspects of IEPs as well as work with diverse populations of students, it seems odd that the training requirements for these two groups of educators were so disparate. Nonetheless, the results of this survey align with what other research has shown; general educators are required to complete minimal training requirements on working with students with special needs during teacher preparation programs (Blanton et al., 2011; Kilanowski-Press et al., 2010; Obiakor & Bakken, 2016). Why are the general educators who are often times responsible for the specially designed instruction of SWDs trained so differently than special educators?

Many teacher training programs use separate training models between regular and special education trainees (Carroll, Forlin, & Jobling, 2003). More specifically, only about half of all states mandate that general education candidates have field experience or coursework on students with disabilities (Obiakor & Bakken, 2016). Some researchers suggest this is not the best way to ensure teachers are adequately trained for helping all students in a general education classroom (Carroll et al., 2003). In order for teachers to be successful in the classroom, teacher preparation programs must improve (Jenkins, Pateman, & Black, 2002). One study suggested that when teacher candidates had minimal exposure to SWDs they exhibited more sympathy and discomfort rather than understanding and confidence in their abilities to help the students (Carroll et al., 2003). Integrating program practices and philosophies may better support the teacher preparation of all educators (Jenkins, et al., 2002).

While some researchers propose a redesigning of teacher preparation programs, there are other researchers who advocate the need for staying separate. Looking at the evolution of general and special education, both have progressed around different premises (Zigmond & Kloo, 2017).

One of the main arguments that researchers who believe it is best to remain segregated practices espouse general education is place for all students while special education is a service reserved for only a few (Zigmond & Kloo, 2017). The belief by these researchers is, “The role of the special education teacher was to teach what could not be learned elsewhere- it was special teaching” (Zigmond & Kloo, 2017, p. 252). However, it is also their belief that many of the instructional practices utilized by special educators could also be beneficial for all students, (Zigmond & Kloo, 2017).

Although teacher preparation during college is a large component of teacher readiness, coaching and mentoring have also been espoused as an important factor in helping teachers become more prepared while in the field (Abbott, Walton, & Greenwood, 2002). As many of the respondents in this survey reported, if a teacher has already completed a preparation program, furthering their training within evidence-based practices relies on their own initiative. Research based strategies and instructional practices are often effective regardless of where instruction occurs, connecting the importance of the roles of special and general educators (Obiakor & Bakken, 2016). However, some researchers have suggested that teachers already in the field are unable to successfully translate trainings from workshops or in-services into real-life implementation because they lack a continuation of support throughout the process (Abbott et al., 2002). Research suggests that multiple demonstrations with frequent feedback is the best way to coach teachers, but this coaching process is not common practice (Grierson & Gallagher, 2009). Without continued support and professional development, research-based programs may come to full fruition or implemented with fidelity, which could directly impact achievement of all students (Abbott et al., 2002). The results of this survey align with what other research has reported, general educators are not sufficiently prepared in college to work with students with disabilities (Blanton

et al., 2011; Kilanowski-Press et al., 2010; Obiakor & Bakken, 2016). The respondents reported feeling extremely or moderately comfortable with making small groups, which could be due to the knowledge they gained on their own while working with students in their classrooms, but without monitoring and observations, whether these small groups were being implemented with fidelity will remain unknown.

5.1 Limitations

Although results of this survey did have similarities to what other research has found, there were also some limitations that should be considered when interpreting the results. The generalizability of this study is limited due to the small sampling size of participants within one school district, which is not an inclusive representation of the diverse schools across the United States. Another limitation to this survey is the sample profile. The majority of respondents who participated in this survey were teaching for 21+ years, which could indicate the teacher training they participated in has changed to a degree. Additionally, only educators were surveyed instead of including students in the asking of frequency and duration of small-group instruction. The data collection process could also be considered a limitation in this study due to the data being collected during a time when virtual learning was occurring due to a shelter-in-place order because of COVID-19. In one of the open-ended responses, one participant even wrote, “I apologize in advance for errors. Please edit my mistakes as needed! I am so busy with remote teaching!” It could be that respondents were distracted by unusual circumstances while attempting to answer questions in the survey. Lastly, as the nature of surveys rely on self-reporting by respondents, the validity of this survey is contingent on the truthfulness of the respondents themselves.

5.2 Implications for Future Research

From this survey, research indicates teachers are implementing small-groups for reading and math, but are they doing it enough and could they be facilitating it in a more effective manner? Since the data collected in this survey aligns with what other research has shown, teachers reported using small-group instruction, future research should focus on considering the reach of the small-group instruction teachers are facilitating. How many students each day are receiving small-group instruction and specifically what groups of students being included in those small-groups should be further analyzed. In addition, are varied assessment methods for group making used to ensure groupings are flexible and monitored through data?

Another component to investigate is the way in which small-groups are being utilized. An important part to effective instruction is ensuring instructional activities are being implemented with evidence-based practices (Cook, Tankersley, Cook, & Landrum, 2008). Evidence-based practices are proven effective through multiple research studies and can take a scientific approach to education (Cook et al., 2008). Just creating a smaller group without changing the format of instruction may not be enough to help students be successful.

Another area future research could help address the validity of self-reporting. Since the data in this study was self-reported by educators, having students report on how much small-group instruction they receive and compare the results would provide a layer of legitimacy to the results. Observations of classroom teachers could also be a focus to gather information on the frequency with which small-group instruction is occurring.

Lastly, it should be acknowledged that the barriers teachers perceive to small-group instruction align with previous research and has yet to be solved. Implementing small-group instruction does involve effort and time, especially if done with fidelity. Identifying more ways to

help teachers with increasing amounts of tasks while providing them with supportive guidance is imperative. Likewise, future research into ways to lessen the burden so many teachers feel while increasing the efficacy of instruction must be a continued focus in order for all students to get the education they need.

5.3 Demonstration of Scholarly Practice

As discussed throughout this study, limited small-group instruction implementation is a multi-faceted problem. As indicated from the study, there is not a cohesive approach to instructional activities and interventions during small-group instruction. One way to assist educators in helping students with disabilities is providing training in which they can learn how to use data to better inform their decision making while designing small-group instruction as well as learn what types of instructional activities are appropriate and how targeted intervention can help students become more successful. Therefore, the demonstration of scholarly practice (Appendix N) resulting from this research will present differentiation of instruction, small-group instruction, instructional activities and interventions for reading.

Appendix A Survey Protocol

Items	Rating Scales
To what degree do you believe small-group instruction is beneficial for students in general? Please choose one.	Great deal A moderate amount A little Neither beneficial nor non-beneficial Not very beneficial Not beneficial at all Other (please specify)
What type of students do you believe small-group instruction is best for? Choose all that apply.	All students High-achieving students Average students Struggling students Students with disabilities Other (please specify)
How important do you think small-group instruction is for all students? Please choose one.	Very important Moderately important Neither important nor unimportant Slightly important Not at all important Other (please specify)
Have you always felt this way about small-group instruction? If not, could you please explain what changed your mind? Please type your response in the box below.	Open-ended:
What subject areas do you use small-group instruction for? Choose all that apply.	All Math ELA Social Studies Science I don't use small-group instruction Other (please specify)
How frequently do you use small-group instruction? Please select one.	Daily 3-4 times a week 2-3 times a week Once a week Never Other (please specify)
When you use small-group instruction what is the duration of the small groups in minutes? Please choose one.	5-10 minutes at a time 10-20 minutes at a time 20-30 minutes at a time 30-40 minutes at a time 40-50 minutes at a time 50-60 minutes at a time
How comfortable are you designing groups for small-group instruction? Please choose one.	Extremely comfortable Moderately comfortable Slightly comfortable Neither comfortable nor uncomfortable Slightly uncomfortable Moderately uncomfortable Extremely uncomfortable Other (please specify)

Demographic Items	Response Options
How many years have you been teaching?	Less than a year 1-4 years 5-10 years 11-15 years 16-20 years 21+ years
What teaching certifications do you have? Please select all that apply.	Early childhood credential Elementary credential Single subject teaching credential (please specify) Special education credential (please specify) Other (please specify)
What are you currently teaching? Please choose all that apply.	Kindergarten First grade Second grade Third grade Fourth grade Fifth grade Single subject area (please specify) Special education (please specify)
Now we are going to focus on college preparation. How many classes have you had on small group instruction or supporting students with special needs? Please select one.	1 2 3 4 5 6+
Since college have you taken any courses yourself or have you been provided courses through your place of employment on small group instruction or supporting students with special needs? If so, please specify the number of courses.	Yes (please specify) no
What experience do you have in instructing students with special needs? Please choose all that apply.	I have students with special needs in my classroom and I work with them. I have been trained by my district on how to work with students with special needs. I have been trained at the collegiate level on how to work with students with special needs. I had a mentor/coach who worked with me inside my classroom on how to work with students with special needs. Other (please specify)

Appendix B IRB Approval Letter

University of Pittsburgh Institutional Review Board

Human Research Protection Office
3500 Fifth Avenue, Suite 106
Pittsburgh, PA 15213
Tel (412) 383-1480
www.hrpo.pitt.edu

APPROVAL OF SUBMISSION (Expedited)

Date:	April 16, 2020
IRB:	STUDY19120181
PI:	Jodi Snyder
Title:	Perceptions and Barriers of Small Group Instruction

The Institutional Review Board reviewed and approved the above referenced study. The study may begin as outlined in the University of Pittsburgh approved application and documents.

Approval Documentation

Review type:	Initial Study
Approval Date:	4/16/2020
Determinations:	<ul style="list-style-type: none">• Waiver of consent documentation
Approved Documents:	<ul style="list-style-type: none">• protocol.docx, Category: Data Collection;• consent_Version_0.02.docx, Category: Waiver Script;• IRB Letter for Jodi Snyder.pdf, Category: Sponsor Attachment;• IRB PAUSD Letter.pdf, Category: External Site Permission Letter;• Recruitment script_Version_0.02 (1).docx, Category: Recruitment Materials;• Vincent Information to Collect - Snyder.xlsx, Category: Sponsor Attachment;

As the Principal Investigator, you are responsible for the conduct of the research and to ensure accurate documentation, protocol compliance, reporting of possibly study-related adverse events and unanticipated problems involving risk to participants or others. The HRPO Reportable Events policy, Chapter 17, is available at <http://www.hrpo.pitt.edu/>.

Continuing review (CR) can be submitted by clicking "Create Modification/CR" from the active study at least 5 weeks prior to the expiration date.

Clinical research being conducted in an UPMC facility cannot begin until fiscal approval is received from the UPMC Office of Sponsored Programs and Research Support (OSPARS).

If you have any questions, please contact the University of Pittsburgh IRB Coordinator, [Carolyn Ivanusic](#).

Please take a moment to complete our [Satisfaction Survey](#)

Appendix C Demographic Results

Question 18: How many years have you been teaching? Please choose one.

Range of Experience	Number of Respondents	Percent
1 to 4 years	2	6%
5 to 10 years	7	23%
11 to 15 years	5	16%
16 to 20 years	7	23%
21+ years	10	32%

Question 19: What teaching certifications do you have? Please select all that apply.

Credential	Number of Respondents	Percent
Elementary	23	74%
Special Education	13	42%
Early Childhood	4	13%
Other: National Board-Certified Teacher	2	6%
Other: Reading Specialist	2	6%
Other: Bilingual/multicultural	1	3%
Other: Social Studies	1	3%
Masters	1	3%
English Language Arts	1	3%

Question 20: What are you currently teaching? Please choose all that apply.

*Denotes further breakdown of above category and the Percent listed are out of that category only.

Credential	Number of Respondents	Percent
General Educator	18	74%
*Kindergarten	3	16%
*First grade	4	22%
*Second grade	3	17%
*Third grade	2	11%
*Fourth grade	2	11%
*Fifth grade	2	11%
Special Education/Specialist	15	48%
*Pre-kindergarten to Fifth grade	1	7%
*Kindergarten to First grade	1	7%
*Kindergarten to Second grade	1	7%
*Kindergarten to Fourth grade	1	7%
*Kindergarten to Fifth grade	7	54%
*Third grade to Fifth grade	2	15%
*Reading Specialist	1	7%
*English Language Development	1	7%

Question 11: To what degree did your teacher preparation program prepare you for implementing small group instruction?

Degree of Preparation	Number of Respondents	Percent
A great deal	2	6%
A lot	3	9%
A moderate amount	10	32%
A little	8	26%
None at all	8	26%
Other (please specify)	0	0

Question 21: Now we are going to focus on college preparation. How many classes have you had on small group instruction or supporting students with special needs? Please select one.

Class Range	Number of Respondents	Percent
0 to 2 classes	16	52%
3 to 5 classes	5	16%
6 or more classes	9	29%
No response	1	3%

Question 22: Since college have you taken any courses yourself or have you been provided courses through your place of employment on small group instruction or supporting students with special needs? If so, please specify the number of courses.

Reported Courses After College	Number of Respondents	Percent
Yes	24	77%
No	7	23%
1 to 4 courses	9	38%
5 to 10 courses	6	25%
10 or more courses	5	21%
No response on number of courses taken	4	17%

Question 23: What experience do you have in instructing students with special needs? Please choose all that apply.

Experience Working with Students with Special Needs	Number of Respondents	Percent
I have students with special needs in my classroom and I work with them	21	61%
I have been trained at the collegiate level on how to work with students with special needs.	8	26%
I have been trained by my district on how to work with students with special needs.	7	23%
I had a mentor/coach who worked with me inside my classroom on how to work with students with special needs	5	16%
Other: tutoring	1	3%

Appendix D Perceptions/Beliefs of Small-Group Instruction Results

Question 1: To what degree do you believe small group instruction is beneficial for students in general?

Degree Beneficial	Number of Respondents	Percent
A great deal	29	94%
A moderate deal	2	6%

Question 2: What type of students do you believe small group instruction is best for?

*Denotes further break down of category.

Types of Students Respondents Chose	Number of Respondents	Percent
All students	27	87%
*also chose average and struggling students	1	3%
*also chose struggling students and SWDs	1	3%
Struggling students	1	3%
Struggling students and SWDs	2	6%
High achieving and struggling students	1	3%

Question 3: How important do you think small group instruction is for all students?

Level of Importance	Number of Respondents	Percent
Extremely important	15	48%
Very important	12	39%
Moderately important	3	9%
Neither important nor unimportant	1	3%

Question 4: Have you always felt this way about small group instruction? If not, could you please explain what changed your mind? Please type your response in the box below.

Report on Feelings	Number of Respondents	Percent
Always acknowledged the importance	12	39%
Increasingly felt this way	6	19%
No response	10	32%

Question 8: How comfortable are you designing groups for small group instruction?

Comfort Level	Number of Respondents	Percent
Extremely comfortable	14	45%
Moderately comfortable	14	45%
Slightly comfortable	3	9%

Appendix E Perceived Barriers to Implementing Small-Group Instruction Results

Question 16: What barriers do you face, if any, when you try or have tried to implement small group instruction? Choose all that apply.

Barrier listed	Number of Respondents	Percent
Time	27	87%
Classroom Management	15	48%
Lack of Resources	9	29%
Lack of Training	4	12.9%
Other: Courage	1	3%
Other: only adult in the room when there are children with big needs	1	3%
Other: Assessment tools	1	3%
Other: Independence of other students if early in the year. Planning time	1	3%
Other: Schools celebrate fads and are too political.	1	3%
Other: Student behavior/student motivation/ family support	1	3%
Other: I have pursued training and gathered materials on my own.	1	3%

Question 17: Please explain how the barrier(s) effects your implementation of small group instruction. Please type your answer below.

How Barrier Effects Implementation	Number of Respondents	Percent
Classroom management effected by extra time other students need	7	23%
Lack of time because there is not enough for planning or finding resources	8	26%
Lack of time because of too many interruptions in school day	5	16%
Lack of time because there is too much to teach to fit groups in	5	16%
Lack of time because of behaviors	9	29%
Lack of training effects implementation	4	13%
Lack of resources effects quality of instruction	5	16%
Implementation with fidelity difficult	5	16%
Scheduling issues	2	6%
Lack of support from administration	1	3%
Kids with special needs need more pull out	1	3%

Appendix F Frequency and Duration Results

Question 6: How frequently do you use small group instruction?

Frequency	Number of Respondents	Percent
Daily	24	77%
3 to 4 times per week	3	9%
2 to 3 times per week	4	13%

Question 7: When you use small group instruction what is the duration of the small groups in minutes?

Duration	Number of Respondents	Percent
5 to 10 minutes at a time	1	3%
10-20 minutes at a time	19	61%
20-30 minutes at a time	8	26%
30-40 minutes at a time	2	6%
40-50 minutes at a time	1	3%

Appendix G Grouping Students Results

Question 9: How do you typically group your students?

Type of Group	Number of Respondents	Percent
Homogenously by ability group	24	77%
Heterogeneously mixing all abilities	13	42%
Heterogeneously with high-achieving and average-achieving students	5	16%
Heterogeneously with high-achieving and low-achieving students	4	13%
Selected other and stated it was dependent on subject	4	13%
Heterogeneously with average-achieving and low achieving students	2	6%
Selected other and stated by learning profile	1	3%
Selected other and stated struggling students with same learning difficulties	1	3%

Appendix H Sources of Data for Grouping Results

Question 10: What sources of data do you use to create your small groups?

Data Source	Number of Respondents	Percent
Observational	26	84%
Formative assessments	23	74%
Summative assessments	22	71%
My opinion	18	58%
Standardized tests	12	39%
Cumulative data	8	26%
Other: Anecdotal	1	3%
Other: Student interest/compatibility	1	3%
Other: Program assessments	1	3%
Other: Criterion based assessments	1	3%
Other; student self-reports	1	3%

Appendix I Subject Areas Used with Small-Group Instruction Results

Question 5: What subject areas do you use small group instruction for?

Subject Areas	Number of Respondents	Percent
English Language Arts	19	61%
Math	18	58%
Science	3	9%
Social studies	2	6%
Social skills/behavior	1	3%
IEP goals	1	3%

Appendix J Curriculum Used During Small-Group Instruction for Reading Results

Question 14: What types of curricular materials do you use to teach your students reading?

*denotes curriculum

Curricular Material	Number of Respondents	Percent
Leveled books	15	48%
Manipulatives (i.e. Magnet Letters)	11	35%
*Lucy Calkins Units of Study	10	32%
Writing materials	7	23%
Novels/other literature	6	19%
Multi-Sensory based	5	16%
Word cards	5	16%
Charts	5	16%
*Orton Gillingham	4	13%
Technology	4	13%
*Pride Reading Program	2	6%
*Reading Recovery	2	6%
Teacher made materials	2	6%
Graphic organizers	2	6%
Kinesthetic cues	2	6%
Online resources	2	6%
*Actively Learn	1	3%
*Really Great Reading	1	3%
*Unique Learning System	1	3%
*Writing Without Tears	1	3%
*Wilson Language	1	3%
*Lindamood-Bell	1	3%
*Leveled literacy intervention	1	3%
Own Experience	1	3%
Sound boxes	1	3%
Pointers	1	3%
Sentence strips	1	3%
Games	1	3%
Songs	1	3%
Textbooks	1	3%
Worksheets	1	3%
Common core math	1	3%

Appendix K Instructional Activities Used During Small-Group Instruction for Reading

Results

Question 13: When you pull a small group for reading instruction, what types of instructional activities do you use?

Instructional Activity Reported	Number of Respondents	Percent
Phonics	15	48%
Comprehension activities	13	42%
Discussion/conference/feedback	11	35%
Shared reading	11	35%
Fluency	7	23%
Guided reading	6	19%
Vocabulary	6	19%
Phonemic awareness	5	16%
Writing	5	16%
Read aloud	5	16%
Multi-sensory tools	5	16%
Specific reading program	5	16%
Sight words	4	13%
Concepts of print	2	6%
Partner work	2	6%
Independent reading/silent reading	2	6%
Teacher-made materials	1	3%
Augmentative and alternative communication	1	3%

Appendix L Small-Group Interventions Occurring During Small-Group Instruction

Results

Question 15: What types of interventions do you use to teach your students reading?

*Denotes curriculum

Interventions Used	Number of Respondents	Percent
Phonics	7	23%
Small groups	6	19%
1-1 work	6	19%
*Orton Gillingham	6	19%
Leveled books	6	19%
*Leveled Literacy Intervention	4	13%
Comprehension activity	4	13%
Differentiated lessons	4	13%
Online resources	4	13%
Mini lessons	3	9%
Response to reading support/Strategy instruction/Modeling/Pre-teach/Re-teach skills	3	9%
Increase frequency of instruction	3	9%
Vocabulary	3	9%
Manipulatives	3	9%
Technology	3	9%
Word cards	2	6%
Reading specialist	2	6%
Graphic organizer	2	6%
Reading trackers	2	6%
Assessments	2	6%
Read aloud	2	6%
Discussions	2	6%
*Lucy Calkins Units of study	2	6%
*Pride	2	6%
*Reading Recovery	2	6%
*Really Great Reading	1	3%
*Wilson	1	3%
*Lexia	1	3%
*Lindamood-Bell	1	3%
*Actively Learn	1	3%
Phonemic awareness	1	3%
Games	1	3%

Partner work	1	3%
Repeated readings	1	3%
Charts	1	3%
Scaffolding	1	3%
Individual reading	1	3%
Reading at home	1	3%
Daily reading	1	3%
Scholarly articles	1	3%
Research models/frameworks	1	3%
Shared reading	1	3%
Goal setting	1	3%
Kinesthetic cues	1	3%
Choral reading	1	3%
Writing materials	1	3%

Appendix M Typical Reading Instruction Results

Question 12: How do you typically teach reading?

Mode	Number of Respondents	Percent
Mixture of whole group and small-group instruction	20	65%
Small-group instruction	10	32%
Other: one-on-one	2	6%

Appendix N Demonstration of Scholarly Practice

Changing Our Perspective

Jodi Snyder

Differentiated Instruction

- More than a different worksheet (Jolliffe, Mawds, Wach & Mogen, 2018)
- Scaffolding, modeling, and explicit instruction
- All students benefit
- Many ways to implement
- Accepting that teaching a topic one way is not an effective approach for maximizing the learning for most students (Pollock et al., 2018)



Environment Where All Can Learn

- All students, regardless of ability are worthy of individualized attention (Kirkley, 2018)
- Focus on foundational skills (Stockard & Engemann, 2018)
- Overlearning (Oriskany, Wells, & Cooper, 1992)

What is small-group instruction for?

- Focus on strategy development
- Increase individual areas of weakness
- Target determined by student assessment
- Trying to maximize learning

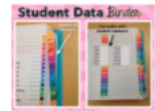


Why small-group instruction?

- We are socially motivated
- Effective and purposeful teacher-child interactions are very critical for young children (Wyatt & Chapman-DeSouza, 2017)
- Small groups help increase these interactions
- Opportunities of modeling of group members instead of solely reliant on the teacher (Lipovsky, Watt, Muir, & Wootley, 1991)

What data should I use?

- Multiple data sources
- Unintentional biases; unintended consequences
 - 17% of students not ranked as needing interventions by teachers were actually in need of extra support (Griffin, Saker, McIntyre, & Jordan, 2018)
- Formative assessment
- Summative assessment
- Cumulative assessment
- Progress monitoring
- Observational data



How should I form groups?

- Data driven
- Group students for increased learning
- Increase student engagement
- Flexible and fluid
- Mixed groups
 - Helps with classroom management
 - Provides peer models
 - Greater learning opportunities
- Homogeneous use more sparingly

Student Progress Tracker:

Self-Directed

Student: _____

Teacher: _____

Start Test Date: _____

Pre Assessment	Formative Assessment
Score: _____	Score: _____
Date: _____	Date: _____
Score: _____	Score: _____
Date: _____	Date: _____
Score: _____	Score: _____
Date: _____	Date: _____

Notes: _____

☐ Student returned self-directed

☐ Student did not return (Continue with strategic interventions)

What should I teach?

5 Main Components

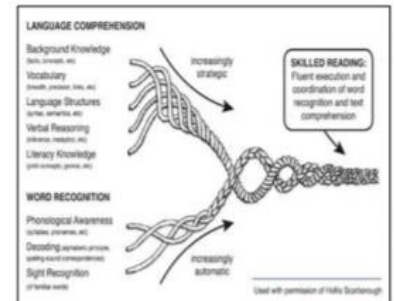
Phonemic awareness

Phonics

Fluency

Vocabulary

Comprehension



Phonemic Awareness

Manipulating sound parts

- isolating beginning sounds
- isolating ending sounds (punch it out)
- counting sounds inside words
- phoneme deletion (cat without 'c')
- substitution (say sat, change 's' to 'm')

<https://www.youtube.com/watch?v=5CWILLYWxUw> (Heggerty example)



Fluency

-Start teaching once decoding skills are established

-Short phrases and then build upon it

The cat ran quickly by me to get the mouse.

-Exaggerate it

-Repeated readings

-Voices of different characters, time them, chart and record scores



Phonics

Lots of rules!



Vocabulary

-Find unknown words first

-Teach how to use context clues

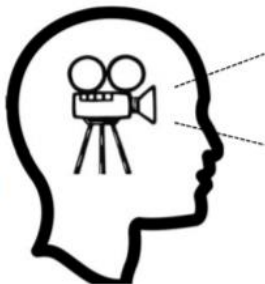
-Use big words

-Sort objects



Comprehension

- Activate their thinking
- Make connections between activities you've done
- Use visualization strategies



What about interventions?

- Type and intensity of instruction (Zigmond, Kloo, & Volonino, 2009)
 - Frequency
 - Duration
 - More modeling/scaffolding
 - Review & repetition
- Focused on a small but targeted set of skills
- Progress monitor to gauge effectiveness (at least 4 weeks)

What instructional activities should I use?

- Engage learners in peer-to-peer collaboration
- Peer tutoring
- Pre-teach/re-teach
- Model
- Reconceptualize learning goals into smaller parts (Wyatt & Chapman-DeSouza, 2017)
 - A small-group task is made up of a smallish reasonable lesson-sized goal within which we could accomplish our learning.

How do I work with students with special needs?

- Direct instruction
- Strategy instruction
- Control of task difficulty
- Promote thinking aloud
- Drill repetition and practice
- Directed question and response
- Strategy cues
- Teacher modeled work with opportunity for guided practice (Volonino, & Zigmond, 2007)

References

- Collins, B. C., Gast, D. L., Ault, M. J., & Wolery, M. (1991). Small Group Instruction: Guidelines for teachers of students with moderate to severe handicaps. *Education and Training in Mental Retardation*, 26(1), 18–32.
- Driskell, J. E., Willis, R. P., & Copper, C. (1992). Effect of Overlearning on Retention. *Journal of Applied Psychology*, 77(5), 615–622.
- Kirby, M. (2017). Implicit assumptions in special education policy: promoting full inclusion for students with learning disabilities. *Child & Youth Care Forum*, 46(2), 175–191.
- Policastro, M. M., Mazeski, D., Wach, N., & Magers, T. (2019). Getting to Know Our Students: The Heart of Differentiation Literacy Classroom. *Illinois Reading Council Journal*, 47(4), 19–29.
- Stockard, J., & Engelmann, K. (2010). The development of early academic success: The impact of Direct instruction's Reading Mastery. *Journal of Behavior Assessment and Intervention in Children*, 1(1), 2–24.
- Wyatt, T., & Chapman-DeSouza, B. (2017). Teaching as Interaction: Challenges in Transitioning Teachers' Instruction to Small Groups. *Early Childhood Education Journal*, 45(1), 61–70.
- Volonino, V., & Zigmond, N. (2007). Promoting research-based practices through inclusion? *Theory into Practice*, 46(4), 291–300.
- Zigmond, N., Kloo, A., & Volonino, V. (2009). What, where, and how? Special education in the climate of full inclusion. *Exceptionality*, 17(4), 189–204.

Bibliography

- Abbott, M., Walton, C., & Greenwood, C. R. (2002). Research to practice phonemic awareness in kindergarten and first grade. *Teaching Exceptional Children*, 34(4), 20-26.
- Ballet, K., & Kelchtermans, G. (2008). Workload and willingness to change: Disentangling the experience of intensification. *Journal of Curriculum Studies*, 40(1), 47–67.
- Betts, J. R., & Shkolnik, J. L. (2000). The effects of ability grouping on student achievement and resource allocation in secondary schools. *Economics of Education Review*, 19(1), 1–15.
- Blanton, L., Pugach, M., & Florian, L. (2011). Preparing general education teachers to improve outcomes for students with disabilities. *American Association of Colleges for Teacher Education Serving Learners & National Center for Learning Disabilities*. 1-30.
- Bowman-Perrott, L., Davis, H., Vannest, K., Williams, L., Parker, R., & Greenwood, C. (2013). Academic benefits of peer tutoring: A meta-analytic review of single-case research. *School Psychology Review*, 42(1), 39–55.
- Brookhart, S. M. (2013). The public understanding of assessment in educational reform in the United States. *Oxford Review of Education*, 39(1), 52–71.
- Carroll, B. A., Forlin, C., & Jobling, A. (2003). The Impact of Teacher Training in Special Education on the Attitudes of Australian Preservice General Educators towards People with Disabilities. *Teacher Education Quarterly*, 65–79.
- Christle, C. A., & Yell, M. L. (2008). Preventing youth incarceration through reading remediation: Issues and solutions. *Reading and Writing Quarterly*, 24(2), 148–176.
- Collins, B. C., Gast, D. L., Ault, M. J., & Wolery, M. (1991). Small Group Instruction: Guidelines for teachers of students with moderate to severe handicaps. *Education and Training in Mental Retardation*, 26(1), 18–32.
- Connor, C. M. D., & Morrison, F. J. (2016). Individualizing student instruction in reading: Implications for policy and practice. *Policy Insights from the Behavioral and Brain Sciences*, 3(1), 54–61.
- Cook, B. G., Tankersley, M., Cook, L., & Landrum, T. J. (2008). Evidence-Based Practices in Special Education : Some Practical Considerations. *Interventions in School and Clinic*, 44(2), 69–75.
- Cook, B.G., McDuffie-Landrum, K.A., Oshita, L., & Cook, S.C. (2011). Co-teaching for students with disabilities: A critical analysis of the empirical literature. In J. M. Kauffman

- Cortiella, C., & Horowitz, S. (2014). The state of learning disabilities. *The National Center for Learning Disabilities*, 58, 34–39.
- Ehri, L. C., Nunes, S. R., Willows, D. M., Schuster, B. V., Yaghoub-Zadeh, Z., & Shanahan, T. (2001). Phonemic Awareness Instruction Helps Children Learn to Read: Evidence From the National Reading Panel’s Meta-Analysis. *Reading Research Quarterly*, 36(3), 250–287.
- Elbaum, B., Vaughn, S., Hughes, M., & Moody, S. W. (1999). Grouping practices and reading outcomes for students with disabilities. *Exceptional Children*, 65(3), 399–415.
- Foorman, B. R., & Torgesen, J. (2001). Critical Elements of Classroom and Small-Group Instruction Promote Reading Success in All Children. *Learning Disabilities Research and Practice*, 16(4), 203–212.
- Fuchs, D., Fuchs, L. S., & Vaughn, S. (2014). What is intensive instruction and why is it important? *Teaching Exceptional Children*, 46 (4), 13-18.
- Gage, N. A., Scott, T., Hirn, R., & Macsuga-Gage, A. S. (2018). The relationship between teachers’ implementation of classroom management practices and student behavior in elementary school. *Behavioral Disorders*, 43(2), 302–315.
- Gamoran, A., Nystrand, M., Berends, M., & LePore, P. C. (1995). An Organizational Analysis of the Effects of Ability Grouping. *American Educational Research Journal*, 32(4), 687–715.
- Gersten, R., Chard, D. J., Jayanthi, M., Baker, S. K., Morphy, P., & Flojo, J. (2009). Mathematics instruction for students with learning disabilities: a meta-analysis of instructional components. *Review of Educational Research*, 79 (3), 1202–1242.
- Good, T. L., Grouws, D. A., & Mason, D. A. (1990). Teachers’ beliefs about small-group instruction in elementary school mathematics. *Journal for Research in Mathematics Education*, 21(1), 2–15.
- Good, T. L., & Marshall, S. (1984). Do students learn more in heterogeneous or homogeneous groups? In Peterson, P. L., Wilkinson, L. C., & Hallinan, (Eds.), *The Social Context of Instruction* (pp 15–37). Orlando, FL: Academic Press, Inc.
- Greenwood, C. R., Arreaga-Mayer, C., Utley, C. A., Gavin, K. M., & Terry, B. J. (2001). Class-wide peer tutoring learning management system: applications with elementary-level English language learners. *Remedial & Special Education*, 22(2), 34–47.
- Grierson, A., & Gallagher, T. (2009). Seeing is believing: Creating a catalyst for teacher change through a demonstration classroom professional development initiative. *Professional Development in Education*, 35, 567–584.
- Grimm, R. P., Solari, E. J., McIntyre, N. S., & Denton, C. A. (2018). Early reading skill profiles in typically developing and at-risk first grade readers to inform targeted early reading instruction. *Journal of School Psychology*, 69 (February), 111–126.

- Guarino, C.M., Hamilton, L.S., Lockwood, J.R., Rathbun, A.H. & Germino Hausken, E. (2006). *Teacher Qualifications, Instructional Practices, and Reading and Mathematics Gains of Kindergartners* (NCES 2006-031). U.S. Department of Education. Washington, DC: National Center for Education Statistics.
- Haager, D., & Vaughn, S. (2013). The common core state standards and reading: interpretations and implications for elementary students with learning disabilities. *Learning Disabilities Research and Practice*, 28(1), 5–16.
- Hagermoser Sanetti, L. M., Williamson, K. M., Long, A. C. J., & Kratochwill, T. R. (2018). Increasing in-Service teacher implementation of classroom management practices through consultation, implementation planning, and participant modeling. *Journal of Positive Behavior Interventions*, 20(1), 43–59.
- Hallinan, M. T. (2000). *Handbook of the Sociology of Education*. New York, NY: Springer Science Business Media, LLC.
- Hallinan, M. T., Bottoms, E., & Pallas, A. M. (2003). Ability grouping and student friendships. *Brookings Institution Press*, 6 (1), 95–140.
- Hargreaves, A. (1993). *Changing teachers, changing times : Teachers' work and culture in the postmodern age*. Retrieved from <https://ebookcentral.proquest.com>
- Henbest, V. S. & Apel, K. (2017). Effective word reading instruction: what does the evidence tell us? *Communication Disorders Quarterly*, 39(1), 303–311.
- Hernandez, D. J. (2012). Double jeopardy: how third-grade reading skills and poverty influence high school graduation. *The Annie E Casey Foundation*, 1–24. Retrieved from <http://www.aecf.org/m/resourcedoc/AECF-DoubleJeopardy-2012-Full.pdf>
- Hudson, R. F., Lane, H. B., & Pullen, P. C. (2005). Reading fluency assessment and instruction: what, why, and how? *The Reading Teacher*, 58(8), 702–714.
- IDEA. (2018). Retrieved from: <https://sites.ed.gov/idea/regs/b/a/300.39>
- Idol, L. (2006). Toward inclusion of special education students in general education: A program evaluation of eight schools. *Remedial and Special Education*, 27 (2): 77–94
- Jenkins, A. A., Pateman, B., & Black, R. S. (2002). Partnerships for Dual Preparation in Elementary, Secondary, and Special Education Programs. *Remedial and Special Education*, 23(6), 359–371.
- Judge, S., & Watson, S. M. R. (2011). Longitudinal outcomes for mathematics achievement for students with learning disabilities. *Journal of Educational Research*, 104(3), 147–157.
- Kamps, D., Abbott, M., Greenwood, C., Wills, H., Veerkamp, M., & Kaufman, J. (2008). Effects of small-group reading instruction and curriculum differences for students most at risk in

- kindergarten: Two-year results for secondary- and tertiary-level interventions. *Journal of Learning Disabilities*, 41 (2), 101–114.
- Kamps, D., Heitzman-Powell, L., Rosenberg, N., Mason, R., Schwartz, I., & Romine, R. S. (2016). Effects of reading mastery as a small-group intervention for young children with ASD. *Journal of Developmental and Physical Disabilities*, 28(5), 703–722.
- Kamps, D. M., Wills, H. P., Greenwood, C. R., Thorne, S., Lazo, J. F., Crockett, J. L., & McGonigle Akers, J., & Swaggart, B. L. (2003). Curriculum Influences on Growth in Early Reading Fluency for Students with Academic and Behavioral Risks: *Journal of Emotional and Behavioral Disorders*, 11(4), 211–224.
- Kelly, S., & Turner, J. (2009). Rethinking the effects of classroom activity structure on the engagement of low-achieving students. *Teachers College Record*, 111(7), 1665–1692.
- Kieffer, M. J., & Lesaux, N. K. (2007). Breaking Down Words to Build Meaning: Morphology, Vocabulary, and Reading Comprehension in the Urban Classroom. *The Reading Teacher*, 61(2), 134–144.
- Kilanowski-Press, L., Foote, C. J., & Rinaldo, V. J. (2010). Inclusion classrooms and teachers: a survey of current practices. *International Journal of Special Education*, 25(3), 43–56.
- Kinder, D., Kubina, R., & Marchand-Martella, N. E. (2005). Direct Instruction: An Effective Combination. *Journal of Direct Instruction*, 5(1), 1–36.
- King, A., Staffieri, A., & Adelgais, A. (1998). Mutual Peer Tutoring: Effects of Structuring Tutorial Interaction to Scaffold Peer Learning. *Journal of Educational Psychology*, 90(1), 134–152.
- Kirby, M. (2017). Implicit assumptions in special education policy: promoting full inclusion for students with learning disabilities. *Child & Youth Care Forum*, 46(2), 175–191.
- Labaree, D. (1997). Public goods, private goods: the American struggle over educational goals. *American Educational Research Journal*, 34(1), 39–81.
- Lawrence-Brown, D. (2004). Differentiated instruction: inclusive strategies for standards-based learning that benefit the whole class. *American Secondary Education*, 32(3), 34–62.
- Leone, P. E., Krezmien, M., Mason, L., & Meisel, S. M. (2005). Organizing and delivering empirically based literacy instruction to incarcerated youth. *Exceptionality*, 13(2), 89–102.
- Lou, Y., Abrami, P. C., Spence, J. C., Poulsen, C., Chambers, B., & d'Apollonia, S. (1996). Within-class grouping : A meta-analysis. *Review of Educational Research*, 66(4), 423–458.
- Lovett, M. W., Frijters, J. C., Wolf, M., Steinbach, K. A., Sevcik, R. A., Morris, R. D., & Benson, N. (2017). Early intervention for children at risk for reading disabilities: the impact of grade at intervention and individual differences on intervention outcomes members of our

- research team and our psychology assessment team. *Journal of Educational Psychology*, 109(7), 889–914.
- Magiera, K., Smith, C., Zigmond, N., & Gebauer, K. (2005). Benefits of co-teaching in secondary mathematics classes. *TEACHING Exceptional Children*, 37(3), 20–24.
- Magiera, K., & Zigmond, N. (2005). Co-teaching in middle school classrooms under routine conditions: does the instructional experience differ for students with disabilities in co-taught and solo taught classes? *Learning Disabilities Research & Practice*, 20 (2), 79-85.
- Marchand-Martella, N. E., Ruby, S. F., & Martella, R. C. (2007). Intensifying reading instruction for students within a three-tier model: Standard-protocol and problem solving approaches within a Response-To-Intervention (RTI) system. *TEACHING Exceptional Children Plus*, 3(5).
- Mathes, P. G., & Fuchs, L. S. (1994). The efficacy of peer tutoring in reading for students with mild disabilities: A best-evidence synthesis. *School Psychology Review*, 23(1), 59.
- Mathes, P. G., & Fuchs, D. (1995). Accommodating diversity through Peabody Class-wide Peer Tutoring. *Intervention In School & Clinic*, 31(1), 46.
- Mertens, D. M. (2015). *Research and evaluation in education and psychology*. Los Angeles, CA: SAGE.
- Milesi, C., & Gamoran, A. (2006). Effects of class size and instruction on kindergarten achievement. *Educational Evaluation and Policy Analysis*, 28(4), 287–313.
- Murawski, W. 2006. Student outcomes in co-taught secondary English classes: how can we improve?. *Reading & Writing Quarterly*, 22: 227–247.
- National Assessment of Educational Progress (2017). Retrieved from https://www.nationsreportcard.gov/math_2017/nation/achievement?grade=4
- National Assessment of Educational Progress (2017). Retrieved from https://www.nationsreportcard.gov/reading_2017/#nation/achievement?grade=4
- National Center for Learning Disabilities (2017). Retrieved from <https://www.ncld.org/research/state-of-learning-disabilities/social-emotional-and-behavioral-challenges#ch4challenge4>
- National Institute for Direct Instruction. (2015). Reading mastery signature edition. Retrieved from: <https://www.nifdi.org/programs/reading/reading-mastery>
- National Reading Panel. (2000). Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction: Reports of the subgroups. Bethesda, MD: National Institute of Child Health and Human Development

- Nelson, S. (2017). Special Education Reform Policies and the Permanence of Oppression: A Critical Race Case Study of Special Education Reform in Shelby County , Tennessee. *Howard Law Journal*, 60(2), 459–482.
- Northrop, L. (2017). Breaking the Cycle: Cumulative Disadvantage in Literacy. *Reading Research Quarterly*, 52(4), 391–396.
- Obiakor, F. E. & Bakken, J. P., (2016). *General and special education inclusion in an age of change: roles of professionals involved*. Bingley, UK: Emerald Group Publishing Limited.
- Ornstein, A.C. (2016). *Excellence vs. equality: Can society achieve both goals*. New York: Routledge.
- Otto, R. (2014). Toward equitable education. A report from: Grantmakers for Education. 1-17.
- Peeters, M. A. G., & Rutte, C. G. (2005). Time management behavior as a moderator for the ob demand-control interaction. *Journal of Occupational Health Psychology*, 10(1), 64–75.
- Policastro, M. M., Mazeski, D., Wach, N., & Magers, T. (2019). Getting to Know Our Students: The Heart of Differentiation Literacy Classroom. *Illinois Reading Council Journal*, 47(4), 19–29.
- Pullen, P.C. & Cash D.B. (2017). *Reading*. In J.M. Kauffman & D. P. Hallahan (Eds.), *Handbook of special education* (2nd Ed.). New York, NY: Routledge.
- Rea, P., McLaughlin, V. L. and Walther-Thomas, C. S. 2002. Outcomes for students with learning disabilities in inclusive and pullout programs. *Exceptional Children*, 68: 203–222.
- Ready, D. D., & Wright, D. L. (2011). Accuracy and inaccuracy in teachers’ perceptions of young children’s cognitive abilities: The role of child background and classroom context. *American Educational Research Journal*, 48(2), 335–360.
- Reid-Lyon, G., Fletcher, J. M., Shaywitz, S. E., Shaywitz, B. A., Torgesen, J. K., Wood, F. B., Schulte, A., & Olson, R. (2001). Rethinking learning disabilities. *Rethinking Special Education for a New Century*, (January 2014), 259–287.
- Santangelo, T., & Tomlinson, C. A. (2012). Teacher Educators’ Perceptions and Use of Differentiated Instruction Practices: An Exploratory Investigation. *Action in Teacher Education*, 34(4), 309–327.
- Schulte, A. C., & Stevens, J. J. (2010). Cross sectional and longitudinal portrayals of the special education mathematics achievement gap. *National Center on Assessment and Accountability for Special Education*. 1-4.
- Schulte, A. C., & Stevens, J. J. (2015). Once, sometimes, or always in special education: mathematics growth and achievement gaps. *Exceptional Children*, 81(3), 370–387.

- Scruggs, T. E., & Mastropieri, M. A. (1996). Teacher Perceptions of Mainstreaming/Inclusion, 1958-1995: A Research Synthesis. *Exceptional Children*, 63(1), 59–74.
- Scruggs, T. E., Mastropieri, M. A., & McDuffie, K. (2007). Co-teaching in inclusive classrooms: A metasynthesis of qualitative research. *Exceptional Children*, 73(4), 392–416.
- Solis, M., Vaughn, S., Swanson, E., & McCulley, L. (2012). Collaborative models of instruction: the empirical foundations of inclusion and co-teaching. *Psychology in the Schools*, 49(5), 498–510.
- Steenbergen-Hu, S., Makel, M. C., & Olszewski-Kubilius, P. (2016). What One Hundred Years of Research Says About the Effects of Ability Grouping and Acceleration on K–12 Students' Academic Achievement: Findings of Two Second-Order Meta-Analyses. *Review of Educational Research*, 86(4), 849-899.
- Stevens, J. J., Schulte, A. C., Elliott, S. N., Nese, J. F. T., & Tindal, G. (2015). Growth and gaps in mathematics achievement of students with and without disabilities on a statewide achievement test. *Journal of School Psychology*, 53(1), 45–62.
- Stockard, J. & Engelmann, K. (2010). The development of early academic success: The impact of Direct Instruction's Reading Mastery. *Journal of Behavior Assessment and Intervention in Children*, 1(1), 2–24.
- Swanson, E. A. (2008). Observing reading instruction for students with learning disabilities: A synthesis. *Learning Disability Quarterly*, 31, 115-133
- Therrien, W. J. (2004). Fluency and comprehension gains as a result of repeated reading A meta-analysis. *Remedial and Special Education*, 25(4), 252–261.
- Tichnor-Wagner, A., Garwood, J. D., Bratsch-Hines, M., & Vernon-Feagans, L. (2015). Home literacy environments and foundational literacy skills for struggling and nonstruggling readers in rural early elementary schools. *Learning Disabilities Research & Practice*, 31 (1), 6-21.
- Torgerson, C. J., Brooks, G., & Hall, J. (2006). A systematic review of the research literature on the use of phonics in the teaching of reading and spelling. *Education and Skills*.
- Torgesen, J. K., Alexander, A. W., Wagner, R. K., Rashotte, C. A., Voeller, K. K. S., & Conway, T. (2001). Intensive remedial instruction for children with severe reading disabilities. *Journal of Learning Disabilities*, 34 (1), 33–58.
- Torgesen, J. K. (2002). The Prevention of Reading Difficulties. *Journal of School Psychology*, 40(1), 7–26.
- Turgut, G. (2013). International tests and the U.S. educational reforms: can success be replicated? *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 86(2), 64–73.

- Ukrainetz, T. A. (2009). Phonemic Awareness: How Much is Enough Within a Changing Picture of Reading Instruction. *Top Language Disorders*, 29(4), 344–359.
- U.S. Department of Education. (2004). *About IDEA*. Retrieved from <https://sites.ed.gov/idea/about-idea/>
- U.S. Department of Education. (2007). *Archived: A 25 year history of the IDEA*. Retrieved from <https://www2.ed.gov/policy/speced/leg/idea/history.html>
- U.S. Department of Education, National Center for Education Statistics. (2016). The digest of education statistics, (2015). Retrieved from <https://nces.ed.gov/fastfacts/display.asp?id=59>
- U.S. Department of Education, National Center for Education Statistics. (2018). Digest of Education Statistics, 2016 (NCES 2017-094), Chapter 2. Retrieved from <https://nces.ed.gov/fastfacts/display.asp?id=64>
- Valli, L., & Buese, D. (2007). The changing roles of teachers in an era of high-stakes accountability. *American Educational Research Journal*, 44(3), 519–558.
- Vaughn, S., Linan-Thompson, S., Kouzekanani, K., Bryant, D. P., Dickson, S., & Blozis, S. A. (2003). Reading instruction grouping for students with reading difficulties. *Remedial & Special Education*, 24 (5), 301-315.
- Wagner, M., Marder, C., Blackorby, J., Cameto, R., Newman, L., Levine, P., & Davies-Mercier, E. (2003). The achievements of youth with disabilities during secondary school: A report from the National Longitudinal Transition Study-2 (NLTS2), 2 (November), 190.
- Wagner, M., Newman, L., Cameto, R., & Levine, P. (2006). The academic achievement and functional performance of youth with disabilities. A report from the national longitudinal transition study-2 (NLTS2). 2 (July), 112.
- Wanzek, J., & Vaughn, S. (2007). Research-based implications from extensive early reading interventions. *School Psychology Review*, 36 (4), 541-561.
- Wanzek, J., & Vaughn, S. (2008). Response to varying amounts of time in reading intervention for students with low response to intervention. *Journal of Learning Disabilities*, 41(2), 126-142.
- Ward, B. A. (1987). Office of Educational Research and Improvement. School Improvement Research Series.
- Watts-Taffe, S., Laster, B. P. B., Broach, L., Marinak, B., McDonald Connor, C., & Walker-Dalhouse, D. (2012). Differentiated: Making Informed Teacher Decisions. *The Reading Teacher*, 66(4), 303–314.
- Zigmond, N., & Kloo, A., (2017). *General and special education are (and should be) different*. In J.M. Kauffman & D. P. Hallahan (Eds.), *Handbook of special education* (2nd Ed.). New York, NY: Routledge.

Zigmond, N., Kloo, A., & Volonino, V. (2009). What, where, and how? Special education in the climate of full inclusion. *Exceptionality*, 17(4), 189-204.